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ANALYSIS OF TRAFFIC ACCIDENT DATA IN KENTUCKY (1988 - 1992)

by

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16. Abstract

This report includes an analysis of traffic accident data in Kentucky for the years of 1988-1992. A primary objective of this study was to determine average accident statistics for Kentucky highways. Average and critical numbers and rates of accidents were calculated for various types of highways in rural and urban areas. These data can be used in Kentucky's procedure to identify locations that have abnormal rates or numbers of accidents.

Another objective of this study was to provide data which can be used in the preparation of the problem identification portion of Kentucky's Annual Highway Safety Plan. County and city accident statistics were analyzed. A summary of results and recommendations in several problem identification areas is presented. These general areas include alcohol, occupant protection, speed, pedestrians, bicycles, motorcycles, and vehicle defects. Other areas included in the analysis included drugs, school bus accidents, and truck accidents.

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INTRODUCTION

Several reports have previously been prepared dealing with calculating traffic accident rates for Kentucky (1, 2, 3, 4, 5, 6) and preparation of the problem identification portion of Kentucky's Annual Highway Safety Plan (7, 8, 9, 10, 11, 12). This is the seventh report providing a combination of those two report areas (13,14,15,16,17,18). Traffic accident data for the five-year period of 1988 through 1992 were used in the preparation of this report.

Kentucky has a systematic procedure to identify locations that have abnormal rates or numbers of traffic accidents. However, before that procedure may be utilized, average accident rates and numbers must be determined for appropriate highway categories and for rural and urban areas. A primary objective of this study was to determine average traffic accident statistics for Kentucky. Those statistics may then be used in the high-accident location identification program to identify high-accident locations. Those locations are then inspected and their accidents are summarized and recommendations are presented, when applicable, for improvements. A past study involved development of accident reduction factors that may be used in the cost-optimization procedure to rank proposed safety improvements (19).

A highway safety program is prepared each year for Kentucky in order to comply with Section 402, Title 23 of the United States Code. This program includes the identification, programming, budgeting, and evaluation of safety projects having the objective of reducing the number and severity of traffic accidents. The data presented in this report may be included as the problem identification portion of Kentucky's Annual Highway Safety Plan.

PROCEDURE

Accident and volume data bases were used to obtain traffic accident statistics. Traffic accident data are currently obtained from the computer accident tape containing all police-reported accidents. Summaries were prepared from an analysis of the accident tapes. Volume data were obtained from a computer file containing traffic volumes for all state maintained highways. The traffic volume for a given year was placed in the statewide mileage tape. The statewide mileage tape was used to obtain the roadway information needed to compute accident rates as a function of various roadway characteristics such as number of lanes and the rural or urban designation.

A computer program using the accident tape and the statewide mileage tape was used to calculate rates for the state-maintained system. A separate computer program was used to obtain additional accident summaries considering all reported traffic accidents.

Rates were calculated for: 1) state-maintained roads having known traffic volumes, route numbers, and mileposts and 2) all streets and highways on and off the state-maintained system. Rates were provided in terms of accidents per 100 million vehicle-miles (ACC/100 MVM) where traffic volumes could be determined. Population was used as the measure of exposure in instances where traffic volume could not be used as the exposure measure. Population data from the 1990 census were used.

In addition to average accident rates, critical rates and numbers of accidents are required for the high-accident location program. Both types of rates were calculated. The following formula was used to calculate critical accident rates:

$$A_c = A_a + K(\text{sqrt}(A_a/M)) + 1/(2M) \quad (1)$$

in which

A_c = critical accident rate,
A_a = average accident rate,
sqrt = square root,
K = constant related to level of statistical significance selected (a probability of 0.995 was used wherein K = 2.576), and
M = exposure (for sections, M was in terms of 100 million vehicle-miles (100 MVM); for spots, M was in terms of million vehicles).

To determine the critical number of accidents, the following formula was used:

$$N_c = N_a + K(\text{sqrt}(N_a)) + 0.5 \quad (2)$$

in which

N_c = critical number of accidents and
N_a = average number of accidents.

There are 18 highway safety problem areas (standards) identified by the National Highway Traffic Safety Administration. Problem areas recently identified for emphasis include alcohol and occupant protection. To identify problems in these areas, as well as other "highway standard" areas, the analyses focused on the following:

1. County Accident Statistics,
2. City Accident Statistics,
3. Alcohol-and Drug-Related Accidents,
4. Occupant Protection,
5. Speed-Related Accidents,
6. Pedestrian Accidents,
7. Bicycle Accidents,
8. Motorcycle Accidents,
9. School Bus Accidents,
10. Truck Accidents,
11. Vehicle Defects, and
12. General Trend Analysis.

STATEWIDE ACCIDENT RATES

All of the rates referred to in this section apply to state-maintained roads having known traffic volumes, route numbers, and mileposts. Accident rates are given in terms of accidents per 100 million vehicle-miles (ACC/100 MVM). Slightly over 27,000 miles are included in this category. This compares to almost 70,000 miles of public roads in Kentucky. While slightly under 40 percent of the total miles are state maintained, these roads account for approximately 90 percent of the vehicle miles traveled and slightly over 50 percent of the accidents. The accident rate on the state-maintained system is dramatically less than on the non-state maintained system.

A comparison of 1988, 1989, 1990 , 1991 and 1992 accident statistics on streets and highways having known traffic volumes, route numbers, and mileposts is shown in Table 1. The number of accidents on the state-maintained road system decreased substantially in 1992 compared to the average of the previous four years. The number of accidents in 1992 was slightly higher than in 1991. The number of accidents in 1988 through 1990 was substantially higher than in 1991 and 1992. When this decrease in total accidents was combined with an increase in vehicle-miles driven, the result was a 19.7 percent decrease in the accident rate in 1992 compared to the previous four-year average. The overall accident rate in 1992 was 216 accidents per 100 million vehicle-miles (ACC/100 MVM). This was the lowest accident rate in the five-year study period. The highest rates were in 1988 and 1989 (about 290 ACC/100 MVM) with a decreasing trend in the accident rate occurring since 1989.

The fatal and injury accident rates also showed a decrease in 1992 compared to the previous four-year average. The fatal accident rate in 1992 was the lowest of the five years. There has been a trend of a decreasing fatal accident rate. The fatal accident rate varied from 2.10 ACC/100 MVM in 1988 to 1.69 ACC/100 MVM in 1992.

The injury accident rate has remained more stable from the lowest rate of 68 ACC/100 MVM in 1992 to the maximum of 86 ACC/100 MVM in 1989.

An analysis of statewide accident rates as a function of several variables, such as highway system classification, was conducted. Also included is information concerning the percentage of accidents occurring for various road conditions and during darkness. Results are presented in APPENDIX A.

Accident rates required to implement the high-accident spot-improvement program in Kentucky are average rural and urban rates by highway type. Current classification is basically by number of lanes, with an additional separation of four-lane highways by divided and undivided highways. Also, interstates and parkways are classified separately. Rates for rural highways for the five-year period (1988-1992) are listed in Table 2, and Table 3 contains rates for urban highways. Highways were placed into either the rural or urban category based upon the rural-urban designation denoted on the Statewide Mileage File. For sections having a volume, route, and milepost cited in the Statewide Mileage File, the rural or urban and highway type classifications were determined. The number of accidents for each section was then obtained from the accident file. The total accident rate per 100 million vehicle-miles, as well as injury and fatal accident rates, were calculated.

On rural highways, four-lane undivided and one-lane highways had the highest rates (Table 2). These two highway types also had the smallest number of miles except for three-lane highways. Four-lane undivided highways had the highest injury accident rate. The highest fatal accident rates were on four-lane undivided highways, followed by two-lane highways. Interstates had the lowest rates, followed closely by parkways. The advantage of median-separated highways is shown when comparing rates for four-lane divided (non-interstate or parkway) and four-lane undivided highways. The overall accident rate for the divided highway (which would not typically have access control) was only about one-third that of the undivided highway although the average daily traffic was very similar.

On urban highways, the highest overall accident rate was on four-lane undivided highways, followed by two-lane highways (Table 3). Those two highway types also had the highest injury accident rates while two-lane highways had the highest fatal accident rates. The lowest overall and injury accident rates were on interstates and parkways.

Tables 2 and 3 show that the overall total accident rate on urban highways was over twice that on rural highways. Also, the injury rate on urban highways was almost 60 percent greater than that for rural highways. However, the fatal accident rate on urban highways was less than one half that for rural highways.

Variations in accident rates by rural and urban highway-type classifications over the five-year period are listed in Table 4. The decrease in accident rates in 1992 compared to the 1988 through 1991 average was shown to have occurred on both rural and urban highways. The decrease in the overall accident rate in rural areas (14.8 percent) was less than in urban areas (23.8 percent). The largest variations in rates tended to occur for the roadway types having the lowest number of miles. The largest decreases in rates in rural locations occurred on four-lane undivided, one-lane, and four-lane divided (non-interstate or parkway) roadways. Large decreases occurred on all urban highways except interstates.

Trends in overall accident rates representative of rural and urban areas are shown graphically in Figure 1 for the period 1988 through 1992. In addition, trends in accident rates for types of highways are shown for rural highways (Figure 2) and urban highways (Figure 3). These rates apply to state-maintained roads having known traffic volumes, route numbers, and mileposts.

Average rates listed in Tables 2 and 3 may be used to determine critical accident rates for sections of highway of various lengths. In addition to highway sections, Kentucky's high-accident location procedure uses highway spots, defined as having a length of 0.3 mile and representing a specific identifiable point on a highway. Statewide accident rates for "spots", by highway-type classification, are listed in Table 5 using 1988 through 1992 data.

The first step in Kentucky's procedure for identifying high-accident locations involves identifying spots and sections that have more than the critical numbers of accidents. Then, the accident rates for those locations are compared to critical accident rates. Statewide averages and critical numbers of accidents for "spots" and 1-mile sections by highway-type classification are presented in Table 6 for 1988 through 1992. Critical numbers of accidents, such as those listed in Table 6, are used to establish the "number of accidents" criterion for determining the initial list of locations. For example, six accidents in this time period would be a critical number of accidents for a 0.3-mile spot for a rural, two-lane highway. Critical numbers of accidents for various section lengths were determined for each highway type using Equation 2. Results are presented in tables in APPENDIX B. Section lengths up to 20 miles for rural roads and up to 10 miles for urban roads are included.

After the initial list of locations meeting the critical number criterion is compiled, comparisons between accident rates for those locations and critical accident rates are made. Critical accident-rate tables for highway sections are presented in APPENDIX C. Critical accident rates for the various rural and urban highways were determined as a function of section length and traffic volume (AADT). The rates are listed in units of accidents per 100 MVM and were calculated using Equation 1.

Critical accident-rate tables for "spots" are contained in APPENDIX D. Those rates are presented in units of accidents per million vehicles and also were determined using Equation 1.

COUNTY ACCIDENT STATISTICS

Accident rates were calculated for each county considering 1) only the state-maintained system and 2) all roads within the county. The accident rates are presented in terms of ACC/100 MVM. Total accident rates were calculated for both categories. Also, using all roads in the county, accident rates were calculated considering fatal accidents only and fatal-or-injury accidents only. Those rates are presented in Table 7. Total miles travelled in each county were determined by combining miles travelled on roads having known traffic volumes with those having no recorded volumes. The statewide mileage tape was used to tabulate vehicle-miles travelled by county on roads having traffic volume counts. The difference between this statewide total of vehicle-miles travelled on roads having known traffic volumes and the total estimated miles driven in the state was then distributed to each county based upon the proportion of registered vehicles in each county to the total in the state. The total miles driven in each county was then obtained by adding the known miles driven on the state-maintained highway system and the estimated miles driven on the remaining streets and highways.

To assist in the analysis of county accident statistics, county populations in descending order were tabulated and presented in Table 8. The populations use data from the 1990 census. The counties were then grouped into five categories based upon population. Using accidents on all roads in the county, average and critical accident rates were calculated (Table 9). The total accident rate and injury-or-fatal accident rates increased as population increased while the fatal accident rate decreased with increased population. The critical accident rate was calculated using Equation 1. Critical rates (in terms of accidents per 100 million vehicle-miles) were calculated for total accidents, fatal accidents, and injury-or-fatal accidents. The numbers of counties having rates above critical in each population category were determined. The total number was 39 for total accidents, 31 for injury-or-fatal accidents, and one for fatal accidents. The consistency in accident data that has been observed during the past few years is shown in that 36 of the 39 counties determined to have a critical accident rate when total accidents were considered were also identified as having a critical accident rate in the previous report (18).

Table 10 contains a list of numbers of accidents and total accident rates for all counties grouped by population category (considering all roads in the county). Counties within each population category are listed in order of descending accident rate, with the critical rates identified.

Accident rates also were calculated by county considering only the state-maintained system. Those rates, grouped by population category, are presented in Table 11. The rankings of counties in Tables 10 and 11 are similar. In three of the five population categories, the same county had the highest rate considering all roads or state-maintained roads. For both cases, Mason County (15,000 to 24,999 population category), Boyle County (25,000 to 50,000 population category), and Daviess County (over 50,000 population category) had the highest rate in its population category. In the under 10,000 population category, Fulton County had the highest rate when all roads were considered while Bracken County had the highest rate when considering only state-maintained roads. In the 10,000 to 14,999 population category, Allen County had the highest rate when all roads were considered while Estill County had the highest rate considering only state-maintained roads. For all roads, Daviess County, followed by Mason and Fayette Counties, had the highest rates in the state. Mason County, followed by Daviess and Harrison Counties, had the highest rates when considering only state-maintained roads. Lyon County had the lowest rate in the state in both cases. Accident rates were higher when all roads were considered compared to rates for only the state-maintained system.

Using accidents on all roads in the county, injury or fatal accident rates are listed in Table 12 in descending order by population category. Counties having critical rates are identified. Counties having the highest rates for their population categories were Owsley, Lewis, Mason, Henderson, and Daviess. Daviess County had the highest rate in the state while Lyon County had the lowest rate.

Similar rates for fatal accidents are listed in Table 13. Counties having the highest rates for their population categories were Bracken, Lewis, Harrison, Perry, and Pike. The highest rates were generally for the smallest counties where there would be more driving on rural roads which would have a speed limit higher than in urban areas. Pike County was the only county identified as having a critical fatal accident rate.

A summary of other miscellaneous accident data used in the problem identification process is presented by county in Table 14. This table includes the number of accidents by county by year; percent change in the 1992 accident total from the previous four-year average; percentages of accidents involving alcohol, drugs, and speeding; percentage of fatal accidents; percentage of injury-or-fatal accidents; and percentage of drivers using safety belts.

CITY ACCIDENT STATISTICS

Accident statistics were analyzed for cities by using the 1988 through 1992 accident data. The primary group of cities included in the analysis were those having a population over 2,500 that were incorporated and had a police agency. Incorporated

cities were eliminated if they did not have a police agency. Incorporated cities in Jefferson County, such as St. Matthews, Jeffersontown, and Shively, were included separately from Louisville because of a desire to analyze accidents for each police reporting agency. Therefore, for Louisville, only the population of the city area was included instead of a metropolitan area population.

Table 15 is a summary of accident rates for cities having populations more than 2,500 that are incorporated and have police agencies. The cities also had to be included in the 1990 census. That table included 113 cities. Rates in terms of ACC/100 MVM are listed for the state-maintained system while rates in terms of accidents per 1,000 population are listed using all streets in the city. The number of accidents in a city on the state-maintained system was obtained using the city code given on the statewide mileage tape. The number of accidents in a city on all roads was obtained using the code given on the accident tape. The table notes the few cities in which a code was not available on the statewide mileage tape such that data for only the state-maintained system could not be obtained.

Additional statistics are listed for each of those cities in Table 16. Rates for fatal accidents, pedestrian-motor vehicle accidents, bicycle-related motor vehicle accidents, and motorcycle accidents are provided. Those rates are in terms of accidents per 10,000 population. Percentages of accidents involving speeding or alcohol are also listed.

Total accident rates for all cities listed in the 1990 census are summarized in APPENDIX E (Table E-1). A total of 435 cities was listed in the census. Included for 343 cities were population, number of accidents, and accident rate (accidents per 1,000 population). In order to obtain accident information, a code for the city must be available. No such code was available for 92 of the cities. These were generally the smallest cities.

Accidents on the state-maintained system of highways within a city generally consisted of approximately one-third of all the accidents occurring within a city. Therefore, total accident rates were used to determine critical accident rates. Accident rates on the state-maintained system, by city and by population category, are shown in Table 17. The cities are listed in descending order by accident rate. The cities that did not have a city code listed in the statewide mileage tape would not be listed in Table 17. Lexington, Richmond, Erlanger, Morehead, Grayson, and Falmouth had the highest accident rate on state-maintained streets in their population category. Cities in the 1,000 to 2,499 population category are also included in this table. A total of 162 cities is listed in this table. The average accident rate for all cities in a category is also listed. The rates were higher for cities in the population categories between 5,000 and 55,000. The rates were lower for the highest and lowest population categories. The lowest overall rate was for the 1,000

to 2,499 population category although the highest rates for individual cities were in this category.

Total accident rates for cities by population category are listed in Table 18. They are tabulated in order of descending accident rates and critical rates are identified. Forty-one cities were identified as having total accident rates above critical. Louisville, Paducah, Florence, London, and Prestonsburg had the highest total accident rates in their respective population ranges. Fatal accident rates, by city and population category, are listed in Table 19. They also are tabulated in order of descending fatal accident rates. Lexington, Paducah, Elizabethtown, Hazard, and Hartford had the highest fatal accident rates in their respective population ranges with no city identified as having a critical fatal accident rate.

ALCOHOL- AND DRUG-RELATED ACCIDENTS

Alcohol- and drug-related accidents continue to be one of the highest priority problem identification areas and considerable emphasis is being placed on programs to impact those problems. In Kentucky, the number of traffic accidents in which alcohol was listed as a contributing factor on the accident report has averaged about 7,550 per year for the past five years. Alcohol-related fatal accidents (fatal accidents with alcohol listed as a contributing factor on the police report) have averaged 182 per year during the past five years. If the cost of an average motor-vehicle accident is used, the estimated annual cost of alcohol-related accidents in Kentucky is about $107 million.

The effectiveness of alcohol enforcement programs has varied throughout the years for various parts of the country. Several enforcement programs have been conducted in Kentucky and evaluations of some of the programs have been documented (20). Results from the programs of increased enforcement in Fayette, McCracken, and Warren counties indicated a significant reduction in alcohol-related accidents during enforcement hours of the program. There were dramatic increases in DUI arrests in the three areas evaluated. DUI conviction rates varied from 90 percent in Fayette County to 77 percent in McCracken County and 55 percent in Warren County (20). Approximately 90 percent of the respondents to a survey questionnaire were in favor of Traffic Alcohol Programs as a means of reducing alcohol-related accidents. Benefit-cost ratios were calculated and were determined as being greater than 1.0 for all areas evaluated. Very similar results were obtained after an impact evaluation of traffic alcohol programs in Jefferson County (21).

The number of alcohol-related accidents has generally decreased over the past several years. In the early 1980's, the annual number of alcohol accidents was over 10,000. In 1984, there were 9,007 alcohol-related accidents (6.6 percent of all accidents). This number decreased to the relatively constant level of 7,741 in 1985; 7,760 in 1986; 7,671 in 1987; 7,890 in 1988; 7,669 in 1989; 8,052 in 1990. There was

a reduction in alcohol-related accidents to 7,185 in 1991 and 6,958 in 1992. The number of alcohol-related accidents decreased by 9.5 percent in 1992 compared to the previous four-year average and was the lowest number since the first year this trend analysis was analysed (1978). Alcohol-related accidents represent 5.2 percent of all accidents during this five-year period. The number of alcohol-related fatal accidents in 1992 (152) decreased by 19.6 percent over the 1988-1991 average (189).

To identify alcohol-related accident problem areas, percentages of accidents involving alcohol were summarized for counties and cities as shown in Tables 20 and 21, respectively. In Table 20, number and percentage of accidents involving alcohol were determined by considering all drivers and two age categories (16 through 18 years and 19 through 20 years). This allowed a separate analysis for young drivers. The counties are listed by county population group in order of descending percentages of alcohol accidents for all drivers. Counties in each population category having the highest percentage of accidents, considering all drivers, involving alcohol are Elliott, Leslie, McCreary, Floyd, and Christian.

The information provided in Table 20 also may be used to determine the counties that have the highest percentages of accidents involving alcohol for young drivers by county population category. The counties identified as having the highest percentages of alcohol-related accidents, considering only young drivers, were not typically the same as those identified when all drivers were considered. For the 16 through 18 years of age category, the counties in each population category having the highest percentages of accidents involving alcohol are Menifee, Magoffin, Marion, Letcher, and Madison. For the 19 to 20 age category, counties having the highest percentage are Robertson, Morgan, Woodford, Floyd, and Christian. No county had the highest percentage for each group of drivers (all drivers, ages 16 through 18 and ages 19 and 20).

Table 21 is a summary of number and percentage of accidents involving alcohol for cities. For each population category, cities having the highest percentages of accidents involving alcohol are Lexington, Covington, Independence, Elsmere, and Hickman.

Additional analyses were performed to show the number and rate of alcohol convictions by county (Table 22). Rates are in terms of convictions per 1,000 licensed drivers and convictions per alcohol-related accident. Five years of conviction data (1988 through 1992) were used in the analysis. Those same rates are presented in Table 23 with counties grouped by population ranges and rates are listed in order of descending percentages. Counties in each population group having the lowest rates of alcohol convictions per 1,000 licensed drivers were McLean, Green, Wayne, Oldham, and Campbell. Counties having the lowest rates of alcohol convictions per alcohol-related accident were McLean, Allen, Marion, Oldham, and Campbell. Counties having low rates for either convictions per 1,000 licensed drivers or

convictions per alcohol-related accident may be candidates for increased enforcement or other special programs (especially if they have a high percentage of alcohol-related accidents). Data in Table 22 show that, statewide, the number of alcohol convictions increased in 1992 compared to the previous four years. The number of alcohol convictions in 1992 decreased from 1990 and 1991 but represents a two percent increase from the average of the previous four years.

A comparison was also made between the total alcohol arrests and total alcohol convictions, by county, for the five years of 1988 through 1992 (Table 24). The statewide percentage of alcohol convictions per arrest over these five years was 69.5 percent. The percentages varied from a low of 43.4 percent in Knott County to a high of 94.3 percent in Marshall County. The percentages could be affected, especially in counties having low numbers of arrests and convictions, by the overlapping effects of arrests being made and convictions being prosecuted in different calendar years. Fourteen other counties had a conviction percentage over 80 percent. Only three other counties had a conviction rate over 90 percent (Bourbon, Lyon and Jessamine). In addition to Knott County, four other counties had a conviction rate under 50 percent (Trimble, Breathitt, Owsley, and Marion). The counties are grouped by population category and are placed in decreasing order of conviction percentage in Table 25. The average conviction percentage did not vary substantially by population category with a 71.5 conviction percent for the highest population category compared to 65.0 percent for the lowest. There was a slight increase in conviction percentage as the county population increased. Counties having the highest conviction percentages in the various population categories were Fayette, Marshall, Bourbon, Butler, and Lyon. Counties having the lowest conviction percentages for the various population categories were Kenton, Letcher, Knott, Pendleton, and Trimble.

A drunk-driving offense may be reduced to a charge of reckless driving. This could occur when a person is arrested for drunk driving, because of erratic driving behavior, and field sobriety or BAC tests fail to confirm the drunk-driving charge. In addition, the severity of the penalty for drunk driving could influence police officers and they might reduce a drunk-driving charge to reckless driving. Similarly, in some instances, the judicial system has been responsible for reducing charges from drunk driving to reckless driving. For those reasons, it was determined that a summary of reckless driving convictions would be beneficial. Numbers of reckless driving convictions and the rate of convictions per 1,000 licensed drivers for each county are presented in Table 26. In the time period of 1988 through 1992 the highest number of convictions was in 1990. There was no definite trend in the number of reckless driving convictions over this time period. The lowest number of convictions occurred in 1992. The number in 1992 was a 19 percent decrease from the average number in the previous four years. The highest rates occurred in Marion, Lee and Taylor Counties. The lowest rates were in Hancock, Trimble, Oldham, and Henry Counties.

Drugs continue to be listed as a contributing factor in a relatively small percentage of all accidents. There has been a general downward trend in this type of accident over the 1988 through 1992 time period. There was a decrease (4.9 percent) in this type of accident in 1992 compared to the 1988-1991 average. The lowest number of drug-related accidents occurred in 1991 with 331 accidents (0.25 percent of all accidents) compared to a high of 387 in 1988 (0.26 percent of all accidents). As may be seen, the percentage of accidents in which drugs are identified as a contributing factor is very small.

Percentages of accidents involving drugs by county and population category are presented in Table 27. Counties having the highest percentages of drug-related accidents by population category were Owsley, Leslie, Clay, Knox, and Pike. All of these counties are in east Kentucky. The highest percentage of this type of accident was in Clay County.

Another summary was prepared to show percentages of accidents involving drugs by city population categories (Table 28). Within each population category, cities having the highest percentages of drug-related accidents were Lexington, Richmond, Georgetown, Edgewood, and Wilmore. The highest percentage of this type of accident was in Edgewood.

OCCUPANT PROTECTION

The percentages of drivers of passenger cars involved in traffic accidents who wore safety belts were listed by county in Table 14. Those percentages are listed in descending order by county population category in Table 29. Those percentages are for the five-year period of 1988 through 1992. The rates varied from a high of 72.0 percent in Fayette County to a low of 8.9 percent in Owsley County. Observational surveys have been conducted across the state for several years and have shown rates lower than that reported in the accident data. Considering only 1991 data, the rates varied from a high of 89 percent in Fayette County to a low of 9 percent in Owsley County. Considering the five-year study period, eight counties (Boone, Fayette, Hardin, Jefferson, Kenton, Oldham, Scott, and Warren) had usage rates over 50 percent while five counties (Clinton, Crittenden, Green, Monroe, and Owsley) had usage rates under 15 percent. It should be noted that local ordinances have been enacted by several cities and counties. The first such ordinances were enacted in Fayette County effective July 1, 1990 and in the city of Louisville effective July 1, 1991. Similar ordinances have also been adopted in Jefferson County, Murray, Kenton County, Corbin, Bardstown, and Midway. Observational surveys conducted since enactment of the ordinances have demonstrated their effectiveness in increasing usage rates.

Counties having potential for intensive promotional campaigns are identified in Table 29. Those counties were selected on the basis of their safety belt usage rate,

accident rate, location in the state, and accident rate. Counties having low usage rates were identified with the criterion of selecting one county from within each of the 16 Kentucky State Police Posts' areas ofjurisdiction. When possible, an attempt was made to select counties having high accident rates.

The variances of safety belt usage rate, by year, from 1988 through 1992 are presented in Table 30 along with the relationship between county population and safety belt usage rate. The percentage using safety belts has increased steadily from 1988 through 1992 with large percentage increases each year. Usage by accident-involved drivers in 1992 (60.9 percent) was approximately two times the usage in 1988 (33.2 percent). It should be noted that the usage rate computed using accident data has been substantially higher than determined from observational surveys. For example, the statewide observational survey for 1992 resulted in a driver usage rate of 41 percent (22) compared to the 61 percent from the accident data. This table also shows the higher usage percentages for counties having over 50,000 population. Counties in the over 50,000 population category had a usage rate basically double that for counties in the under 10,000 population category.

Safety belts are recognized as an effective method of reducing accident severity. This is confirmed by data presented in Table 31. This table shows that, when a driver of a motor vehicle is wearing a safety belt at the time of an accident, the chance of being fatally injured is reduced by 82 percent. Also, the chance of receiving an incapacitating injury is reduced by 52 percent and the chance of receiving a non-incapacitating injury is reduced by 37 percent. Safety belts will greatly decrease the possibility of injury in accidents involving large deceleration forces, but some injury or complaint of soreness or discomfort may persist. In many instances, use of seat belts will reduce a severe injury to a less severe injury. The category of "possible injury", which involves a complaint of pain without visible signs of injury, decreased only 13 percent (from 6.57 percent for drivers not wearing safety belts to 5.70 percent for drivers wearing safety belts). The chance of receiving either a fatal or incapacitating injury was reduced by 54 percent. This percentage agrees with national statistics concerning the effectiveness of safety belts in reducing fatal or serious injuries. The reductions in accident severity were determined to be statistically significant (probability of 0.99) (23).

The change in accident severity for drivers wearing and not wearing a safety belt is presented in Table 32 for the years 1988 through 1992. The reduction in severity from the use of safety belts has remained consistent. There has been a trend toward a slight increase in the severity of injuries to drivers not wearing a safety belt over the time period.

Potential savings associated with increased safety belt usage were estimated and are shown in Table 33. This table lists the annual potential reduction in the number of fatalities, serious injuries (those listed as incapacitating on the accident

report), and the associated accident cost savings resulting from that reduction. Those savings are given for driver usage rates from 50 to 100 percent. To obtain the current results, 1992 safety belt statistics and cost estimates recommended by the Federal Highway Administration (24) were used (as shown in the footnote in Table 33). An actual usage rate of 41 percent (22), as determined in the 1992 statewide usage survey, was used along with a reduction associated with safety belt usage of 82 percent for fatalities and 52 percent for incapacitating injuries. Accident cost estimates were $1,500,000 for a fatality and $39,000 for an incapacitating injury (24). For example, if 70 percent of all drivers involved in accidents in Kentucky wore safety belts, there would be a potential annual reduction of about 168 fatalities and a potential annual reduction in the cost of fatalities and serious injuries of approximately 296 million dollars.

A summary of usage and effectiveness of child safety seats for children under the age of four who were involved in traffic accidents is presented in Table 34. Data are for 1988 through 1992. Age categories in the accident file governed the age category that was used. Most children three years of age or younger would be placed in a child safety seat rather than a seatbelt or harness. However, many were coded as wearing a safety belt, so the categories of restraint used were 1) none, 2) safety belt or harness, 3) child safety seat, and 4) any restraint.

Of the 40 fatalities (children age three and under) occurring during the study period, 21 involved use of a restraint. The number of children wearing a restraint who sustained a fatal injury would be related to the high usage and possibly to improper usage. Also, of 761 incapacitating injuries, only 279 involved use of a restraint. A better measure of effectiveness would be the percentage sustaining a specific injury. This analysis revealed the percentages of fatalities and incapacitating and non-incapacitating injuries were much lower for children who were in a child safety seat or safety belt compared to those using no restraint. Comparison of the "any restraint" and "none" categories revealed there was a 38-percent reduction in fatalities for children in restraints, a 67-percent reduction in incapacitating injuries, a 52-percent reduction in non-incapacitating injuries, and a 39-percent reduction in possible injuries.

An analysis of the percentage of children in restraints revealed the percentage was highest for rear-seat locations. A comparison of percent usage by year shows a steady increase in the usage rate. The most recent usage rate was 74 percent in 1992.

Additional analysis of accident data related to safety belt usage is included in APPENDIX F.

SPEED-RELATED ACCIDENTS

Speed is one of the most common contributing factors in total accidents and fatal accidents. Speed-related accidents, as a percentage of total accidents, has remained relatively constant for the period 1988 through 1992. For the five-year period, speed-related accidents represented 7.3 percent of all accidents. The number of speed-related accidents varied over this period from a high of 11,787 in 1989 to a low of 9,455 in 1991. The number of speed-related accidents decreased by 9.1 percent in 1992 compared to the previous four years.

As a means of analyzing speed-related accidents, accidents having "unsafe speed" coded as a contributing factor were summarized by county and population category in Table 35. When arranged in order of decreasing percentages of speed-related accidents, those counties having the highest percentages in each population category were Gallatin, Leslie, McCreary, Floyd, and Pike. There appears to be a concentration of counties having a high percentage of speed-related accidents in the southeastern section of the state. A similar summary of accidents involving unsafe speeds for cities was prepared and is presented in Table 36. Those cities having the highest percentages in each population category were Lexington, Hopkinsville, Fort Thomas, Taylor Mill, and Lakeside Park.

In addition to accident analysis, the other major area of analysis for unsafe speed was speed convictions. Areas having large percentages of accidents involving speeding and low conviction rates are candidates for increased enforcement. Table 37 presents a summary of speeding convictions by county. Numbers of speed convictions, speed convictions per 1,000 licensed drivers, and speeding convictions per speed-related accident are included. To assist in identifying areas having the potential for increased enforcement, Table 38 was prepared with speeding conviction rates listed in descending order by county population categories. Within each population category, those counties having the lowest speeding conviction rates per 1,000 licensed drivers are Elliott, Jackson, Knott, Letcher, and Pike. Counties having the lowest rates of speeding convictions per speed-related accident are Elliott, Jackson, Clay, Letcher, and Pike. There was a predominance of counties having high percentages of speed-related accidents and low rates of convictions in the southeastern section of Kentucky.

The percentage of vehicles exceeding the 55-mph speed limit has been monitored and reported by the Kentucky Department of Highways on a quarterly basis since 1978. The speed limit on rural interstates was raised to 65 mph in June 1987. A summary of data collected as part of the speed monitoring program for 1992 is presented in Table 39. That summary shows that, excluding rural interstates, 552,239 vehicles were monitored at 29 locations. Including rural interstates, there were 734,945 vehicles monitored at 35 locations. The percentage of vehicles exceeding 55 mph on all monitored roads, except rural interstates, (using weighting

factors to reflect vehicle miles traveled) was 41.6 percent. The percentage of vehicles exceeding the 65 mph speed limit on rural interstates was 35.0 percent.

Another summary was prepared to show overall compliance with the 55-mph speed limit from 1986 through 1992 (Table 40). The speed limit on rural interstates and parkways was increased to 65 mph in 1987. The speed data on both rural and urban interstates show the increase in speeds that occurred after the increase in the speed limit in 1987. A comparison of 85th percentile speeds on rural interstates before and after start of the 65 mph speed limit in June 1987 shows speeds of 65 mph for 1986 compared to 70 mph for 1988 through 1992. The 85th percentile speeds on urban interstates increased from 64 mph in 1986 to the range of 65 to 66 mph in 1988 through 1992. The state total percentage of vehicles exceeding 55 mph decreased in 1987 since rural interstates were excluded that year.

GENERAL ACCIDENT STATISTICS

Several types of general statistics were developed for use in analyses of specific problem areas. Included were accident trends over a five-year period and several types of statistics for accidents involving pedestrians, bicycles, motorcycles, school buses, and trucks.

ACCIDENT TREND ANALYSIS

An analysis of accident trends over the five-year period is summarized in Table 41. The 1992 accidents were compared to an average of the preceding four years (1988-1991). There was a decrease in total accidents (2.8 percent) when comparing 1992 to the previous four years. The highest number of accidents occurred in 1989 (151,422) with the lowest number occurring in 1991 (134,207). The number of fatal accidents and fatalities in 1992 was very close to the previous four-year average. The number of fatalities ranged from 776 in 1989 to 851 in 1990. The number of injury accidents and injuries in 1992 were also very close to the previous four-year average. The number of injuries varied from 49,926 in 1991 to 54,057 in 1990.

Vehicle-miles traveled has increased steadily over the five-year period. The combination of the increase in vehicle miles traveled and the decrease in the number of accidents resulted in a large decrease in the total accident rate in 1992 compared to the previous four-year average. There was also a similar decrease in the fatal accident accident rate. The total accident rate in 1992 was lower than any of the previous four years except 1991. The fatal and fatality accident rates in 1992 were lower than any of the previous four years.

Trends in the number of specific types of accidents also are presented in Table 41. Those trends are discussed in the section dealing with that accident category.

There was a total of 722,584 accidents in the five-year period, of which 3,613 (0.5 percent) were fatal accidents and 172,986 (23.9 percent) were injury accidents. Those accidents resulted in 4,114 fatalities and 261,190 injuries. Using accident cost estimates recommended by the Federal Highway Administration (24) yields an average annual cost of almost two billion dollars for motor-vehicle accidents in Kentucky for the period 1988 through 1992. The average cost of a motor-vehicle accident was approximately $14,100.

Additional general statistics compiled by county for accidents involving pedestrians, bicycles, motorcycles, school buses, and trucks are included in Table 42. Numbers of accidents and average annual accidents per 10,000 population were included.

PEDESTRIAN ACCIDENTS

The number of pedestrian accidents decreased by 5.5 percent in 1992 compared to the period 1988 through 1991. The number of pedestrian accidents has remained fairly stable over the time period with a slight downward trend. A summary of pedestrian accident statistics by county and population category is presented in Table 43. Numbers of accidents and annual accident rates per 10,000 population are included. From the listing of accident rates in descending order, the following counties had the highest rates in each population category: Carroll, Pendleton, Scott, Boyle and Bell and Henderson, and Kenton. A similar analysis was performed for pedestrian accidents by city and population category. Results are summarized in Table 44 and the following cities had the highest rates in their respective population categories: Louisville, Covington, Newport, Maysville, and Carrollton. Covington and Newport had substantially higher rates than any other city.

BICYCLE ACCIDENTS

Numbers and rates of motor-vehicle accidents involving bicycles by county are listed in Table 45. Counties were grouped by population category. The counties having the highest accident rate in each category are Fulton, Anderson, Mason, Henderson, and Daviess. A similar summary was prepared for cities and the results are presented in Table 46. Cities having the highest rate of bicycle-related accidents in each population category are Louisville, Covington, Madisonville, Bellevue, and Ludlow.

The number of bicycle accidents increased slightly in 1992 (3.5 percent) compared to the average of 1988 through 1991. The number of bicycle accidents has ranged from 706 in 1991 to 827 in 1988. There had been a general downward trend in the number of motor-vehicle accidents involving bicycles prior to 1992.

MOTORCYCLE ACCIDENTS

County and city statistics for accidents involving motorcycles are presented in Tables 47 and 48, respectively. For each population category, counties having the highest rates for motorcycle accidents per 10,000 population were Carroll, Leslie, Wayne, Henderson, and McCracken (Table 47). From Table 48, those cities having the highest rates in each population category were Lexington, Paducah, Glasgow, London, and Prestonsburg.

There has been a steady decline in the annual number of motorcycle accidents over the five-year period from a high of 1,295 in 1988 to a low of 1,014 in 1992. There was a large decrease (10.7 percent) in 1992 compared to the 1988 to 1991 average.

SCHOOL BUS ACCIDENTS

School bus accident statistics were summarized for counties and cities and results are presented in Tables 49 and 50. Table 49 lists numbers and rates of school bus accidents by county and population category. Counties having the highest rates in each population category are Metcalfe, Edmonson and Pendleton, Scott, Clark, and Fayette. A similar summary was prepared for cities by population categories, as shown in Table 50. Those cities having the highest rates in each population category are Lexington, Covington, Shively, Versailles and Bardstown, and Prestonsburg.

The trend analysis presented in Table 41 indicates there has been a general increasing trend in school bus accidents. The annual number of this type of accident ranged from 755 in 1987 to 855 in 1992. The number of this type of accident in 1992 was 5.8 percent higher than for the 1988 through 1991 average.

TRUCK ACCIDENTS

Truck accidents included both single unit and combination trucks. A summary of those accidents by county is given in Table 51. Counties having the highest rates in each population category were Gallatin, Henry, Simpson, Perry, and Boone. All of these counties except Perry County have at least one interstate highway within their borders. There is a large amount of coal truck traffic in Perry County.

The trend analysis shows a steady number of truck accidents for the period of 1988 through 1990 with decreases in 1991 and 1992. The number of truck accidents ranged from 11,566 in 1989 to 9,365 in 1991. The number of truck accidents in 1992 represented a 4.6 percent decrease compared to the previous four-year average (Table 41).

VEHICLE DEFECTS

The requirement for an annual vehicle inspection was repealed in 1978. A summary of the involvement of vehicle defects in accidents before and after repeal of that law is presented in Table 52. The percent of accidents involving a vehicle defect was 5.86 percent before repeal of the vehicle inspection law. The percent increased to 7.09 in the first 19 months after repeal of the law and has averaged 6.95 percent for 1980 through 1992. There has been a general decrease in this percentage since a maximum of 7.55 percent in 1981 with the 6.03 percent in 1992 the lowest since repeal of the vehicle inspection law.

Applying the "before" percentage of accidents involving a vehicle defect (5.86 percent) to the 1988 through 1992 data provides an estimate of the increase in the number of "vehicle defect" related accidents that may be attributed to repeal of the vehicle inspection law. Applying that "before" percentage yielded 3,710 fewer accidents in the five-year period or an average of about 740 accidents per year. The average cost of an accident was about $14,100 using the accident cost estimates recommended by the Federal Highway Administration (24). Therefore, 740 additional accidents would result in approximately 10.5 million dollars per year in accident costs that could be partially attributed to repeal of the vehicle inspection law.

SUMMARY AND RECOMMENDATIONS

STATEWIDE ACCIDENT RATES

For the high-accident-location safety improvement program in Kentucky to be successful, procedures for identifying high-accident locations and scheduling improvements must be used. A computer program has been developed to identify high-accident locations. Vital inputs into this program are average and critical accident numbers and rates for rural and urban highway classifications. This information is presented in this report.

COUNTY AND CITY ACCIDENT STATISTICS

The various types of accident rates calculated and included in this report were used in the analysis of various problem identification areas.

A program currently exists to provide funds for the purchase of appropriate signs to bring signing on city and county streets and roadways into compliance with the standards included in the Manual on Uniform Traffic Control Devices. A large number of cities have taken advantage of this program which has been expanded to include counties. The following cities have critical accident rates (as shown in Table 18) but have not been included in this signing program. It is recommended that they be considered as candidates for participation in the program.

1. Richmond
2. Shively
4. Versailles
5. Prestonsburg
6. Harlan
7. Cold Spring
8. Columbia
9. Oak Grove
10. Shepherdsville
11. Russell
12. Leitchfield
12. Scottsville
13. Grayson
14. Highland Heights
15. Crestview Hills

ALCOHOL-RELATED ACCIDENTS

1. The number of alcohol-related accidents has decreased in 1992 compared to the previous four-year average and has decreased farther from the level prior to 1985. This may be related to increased enforcement and public information campaigns that have increased public awareness.

As part of the analysis, percentages of alcohol-related accidents were tabulated for counties and cities. In addition, alcohol conviction rates were tabulated by county. Those counties having relatively high percentages of alcohol-related accidents (Table 20) and low average numbers of alcohol convictions per alcohol accident (Table 23) were identified as potential locations where increased enforcement may be beneficial. Counties were also required to have 200 or more alcohol-related accidents during the five-year analysis period to be considered as potential counties for the increased alcohol-related enforcement program. Following is a list of those counties by State Police Post.

Post Number	County
1	Graves

2	Christian
3	Warren
4	Bullitt
5	Oldham
6	Campbell
7	Clark
8	Mason
9	Pike
10	Bell
11	Whitley
12	Woodford
13	Perry
14	Carter
15	Marion
16	Henderson

2. An analysis was performed for cities similar to that for counties. However, alcohol conviction rates were not available for cities and consideration was given to conviction rates for counties within which a city was located. Again, the criterion of 200 or more alcohol-related accidents within a five-year period was applied (Table 21). The following are candidate cities for a program of increased alcohol enforcement.

1. Covington,
2. Hopkinsville,
3. Richmond,
4. Paducah,
5. Frankfort,
6. Henderson,
7. Bowling Green, and
8. Newport.

OCCUPANT PROTECTION

1. The large potential for reduction in injury and accident costs associated with increased use of safety belts continues to warrant programs having the objective of increasing safety belt usage. Safety belt programs such as those described by the National Highway Traffic Safety Administration (NHTSA) have been conducted in several locations in the past and should continue, with the objectives of increasing awareness of risks of traffic accidents, increasing understanding of benefits of safety belt usage, and providing assistance to organizations willing to promote safety belt usage. This should be implemented on a statewide level. Counties that are candidates for more intensive promotion campaigns were identified in Table 29. A list of those counties, by State Police Post, follows:

Post Number	County
1	Graves
2	Hopkins
3	Allen
4	Larue
5	Carroll
6	Bourbon
7	Owsley
8	Lewis
9	Pike
10	Perry
11	Wayne
12	Anderson
13	Perry
14	Boyd
15	Taylor
16	Daviess

2. Statewide surveys of the use of child safety seats, after implementation of the mandatory usage law which became effective in July 1982, have been conducted annually. Usage has increased, especially after the addition of a penalty provision in 1988. Additional modifications to the current child safety seat law could be enacted to strengthen it further. For example, the driver of a vehicle in which a child subject to the law is riding should be responsible for placing the child in a proper restraint whether or not the driver is the parent or legal guardian.

3. A statewide mandatory seat belt usage law for all drivers would provide the greatest potential for increasing safety belt usage. Such laws have been enacted in almost all the states. Data summarized in this report could be used to document potential benefits of increased seat belt usage. A statewide mandatory seat belt law should be considered by the Kentucky General Assembly. In lieu of a statewide law, individual local governments should consider such a law. Observational surveys conducted in Lexington and Louisville show that enactment of a local ordinance can result in a significant increase in safety belt usage.

4. To maintain up-to-date usage statistics and to determine the effect of new or modified laws or promotional campaigns, annual statewide observational surveys should be conducted.

5. The age at which a child may safely be placed in a safety belt rather than a child safety seat has not been determined. While accident statistics (Table 34) indicate the accident severities between child safety seats and safety belts are similar, a more detailed investigation is needed. An analysis should be conducted

through use of a report supplement to be completed by investigating officers when a child in a restraint is involved in an accident.

6. More detailed information should be obtained for accidents in which a driver or passenger wearing a safety belt is either fatally or severely injured. A report supplement should be developed for use when an occupant wearing a safety belt receives a fatal or incapacitating injury. With increased safety belt usage, there is likely to be increased injuries and fatalities when a safety belt is used and it would be beneficial to document the circumstances involved.

SPEED-RELATED ACCIDENTS

1. Unsafe speed has been shown to be the primary contributing factor in fatal accidents and the fourth most frequent contributing factor in all accidents (13). Problems were identified for counties and cities by determining the percentages of speed-related accidents. In addition, speeding conviction rates were tabulated by county. Those counties having high percentages of speed-related accidents (Table 35) and low average number of speeding convictions per speed-related accident (Table 38) were identified as possible locations for increased enforcement. Locations meeting the criteria for accidents and convictions also were required to have at least 200 speed-related accidents during the five-year study period and speed-related accidents were at least 10 percent of total accidents. Following is a list of counties (tabulated by State Police Post) recommended for programs of increased speed enforcement (some posts had no counties listed while others had several):

Post Number	Counties
2	Muhlenburg
3	Edmonson, Allen
4	Meade
5	Gallatin
6	Grant
7	Madison
8	Bath, Rowan
9	Floyd, Magoffin, Martin, Pike
10	Harlan
11	Clay, Whitley
12	Shelby
13	Breathitt, Letcher
14	Carter
16	Ohio

2. By analyzing speed-related accident rates for cities and applying the criterion of at least 200 accidents during the five-year period and speed related

accidents were at least five percent of total accidents (Table 36), the following cities were recommended for additional programs of speed enforcement:

1. Hopkinsville,
2. Frankfort,
3. Newport, and
4. Florence.

GENERAL ACCIDENT STATISTICS

Pedestrians

The accident rate analyses identified Louisville, Covington, and Newport as cities having a high accident rate for pedestrian accidents as well as a large number of such accidents (Table 44). A study to determine factors contributing to this problem in those cities and recommendations for improved traffic control measures, increased police enforcement, or driver and pedestrian education programs is warranted.

Bicycles

Louisville and Covington also had a high accident rate and number of this type of accident compared to other cities in the state (Table 46) (as with pedestrian accidents). A study of this type of accident could be included with the previously mentioned study of pedestrian accidents.

Motorcycles

Paducah had the highest percentage of this type of accident (Table 48) while McCracken County had the highest percentage in its population category (Table 47). An evaluation of these accidents in this city and county is warranted. Wayne County had a substantially higher percentage of this type of accident than any other county in the state.

Vehicle Defects

The percentage of accidents involving vehicle defects has increased since repeal of the vehicle inspection law. It could be concluded that the repeal of that law resulted in additional accidents involving vehicle defects, but a detailed study of defects involved should be conducted to verify such a conclusion. There is a need for such a study to determine whether the defects that have contributed to accidents since repeal of the vehicle inspection law were of the type that might have been detected under the previous inspection program. That study could also reveal types of inspections necessary to detect defects contributing to accidents.

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TABLE 1. Comparison of 1988, 1989, 1990, 1991 and 1992 Accident Rates*

STATISTIC	1988	1989	1990	1991	1988-1991 Average	1992	Percent Change***
Accidents	82,213	85,086	83,240	68,763	79,826	71,262	-10.7%
Mileage	27,390	27,407	27,411	27,430	27,410	27,418	0.0%
Accidents Per Mile	3.00	3.10	3.04	2.51	2.91	2.60	-10.7%
Vehicle Miles (Billion)	28.59	29.42	30.46	30.39	29.72	33.04	11.2%
AADT	2,859	2,942	3,045	3,035	2,970	3,302	11.2%
Accident Rate**	288	289	273	226	269	216	-19.7%
Fatal Accident Rate**	2.10	1.92	2.07	1.87	1.99	1.69	-15.1%
Injury Accident Rate**	85	86	83	71	81	68	-16.3%

* Data apply to streets and highways having known traffic volumes, route numbers and mileposts.

** Accidents Rates are given in terms of accidents per 100 million vehicle-miles (ACC/100 MVM).

*** Percent change from 1988-1991 average to 1992.

TABLE 2. Statewide Rural Accident Rates by Highway Type Classification (1988-1992)

HIGHWAY TYPE	TOTAL MILEAGE*	ACCIDENT RATES (ACCIDENTS PER 100 MVM) AADT	ALL	INJURY	FATAL
One Lane	106	670	308	83	1.6
Two-Lane	23,811	1,510	236	86	3.1
Three-Lane	16	7,960	231	83	1.7
Four-Lane Divided (Non-Interstate or Parkway)	368	8,810	138	51	1.6
Four-Lane Undivided	46	8,310	376	111	4.4
Interstate	578	21,430	58	18	0.9
Parkway	534	5,290	80	22	1.2
All	25,459	2,160	183	66	2.4

*Average for the five years.

TABLE 3. Statewide Urban Accident Rates By Highway Type Classification (1988-1992)

HIGHWAY TYPE	TOTAL MILEAGE*	ACCIDENT RATES (ACCIDENTS PER 100 MVM) AADT	ALL	INJURY	FATAL
Two-Lane	1,237	6,900	557	148	1.5
Three-Lane	15	9,520	440	115	0.4
Four-Lane Divided (Non-Interstate or Parkway)	343	21,530	414	104	0.9
Four-Lane Undivided	134	17,860	867	215	1.3
Interstate	174	53,720	129	32	0.5
Parkway	40	6,690	150	37	1.0
All	1,955	14,470	401	103	1.0

* Average for the five years.

** Includes small number of one-, five- and six-lane highways.

TABLE 4. Comparison of 1988, 1989, 1990, 1991 and 1992 Accident Rates by Rural and Urban Highway Type Classification

LOCATION	HIGHWAY TYPE	ACCIDENT RATES (ACC/100 MVM) 1988	1989	1990	1991	1988-1991 AVERAGE	1992	PERCENT CHANGE
Rural	One-Lane	285	383	313	349	333	225	-32.3%
	Two-Lane	246	257	253	215	243	211	-13.1%
	Three-Lane	233	238	288	133	223	267	19.6%
	Four-Lane Divided (Non-Interstate or Parkway)	160	173	159	104	149	105	-29.2%
	Four-Lane Undivided	453	470	478	293	424	244	-42.4%
	Interstate	61	67	58	54	60	51	-15.4%
	Parkway	82	85	89	74	82	71	-13.3%
	All	193	203	196	164	189	161	-14.8%
Urban	Two-Lane	640	637	611	468	589	451	-23.5%
	Three-Lane	546	508	509	391	488	293	-40.1%
	Four-Lane Divided	509	479	454	342	446	306	-31.5%
	Four-Lane Undivided	1,036	970	919	747	918	695	-24.3%
	Interstate	143	144	115	127	132	119	-9.8%
	Parkway	159	213	204	118	174	102	-41.5%
	All	472	456	420	346	424	323	-23.8%

* Percent change from 1988-1991 to 1992

TABLE 5. Statewide Accident Rates For "Spots" By Highway Type Classification (1988-1992)

RURAL OR URBAN	HIGHWAY TYPE	NUMBER OF ACCIDENTS	NUMBER OF SPOTS*	MILLION VEHICLES PER YEAR	ACCIDENTS PER MILLION VEHICLES PER SPOT
Rural	One-Lane	397	353	0.24	0.92
	Two-Lane	154,645	79,371	0.55	0.71
	Three-Lane	536	53	2.91	0.69
	Four-Lane Divided (Non-Interstate or Parkway)	8,170	1,227	3.22	0.41
	Four-Lane Undivided	2,622	153	3.03	1.13
	Interstate	13,082	1,926	7.82	0.17
	Parkway	4,121	1,780	1.93	0.24
	All Rural	183,573	84,865	0.79	0.55
Urban	Two-Lane	86,693	4,124	2.52	1.67
	Three-Lane	1,159	51	3.47	1.32
	Four-Lane Divided	55,710	1,142	7.86	1.24
	Four-Lane Undivided	38,001	448	6.52	2.60
	Interstate	22,026	579	19.61	0.39
	Parkway	735	134	2.44	0.45
	All Urban**	206,991	6,517	5.28	1.20

* Average for the five years. The length of a spot is defined to be 0.3 mile.
** Includes small number of miles of one-, five- and six-lane highways.

TABLE 6. Statewide Average and Critical Numbers of Accidents for "Spots" and One-Mile Sections by Highway Type Classification (1988-1992)*

RURAL OR URBAN	HIGHWAY TYPE	ACCIDENTS PER SPOT		ACCIDENTS PER ONE-MILE SECTION	
		AVERAGE	CRITICAL NUMBER	AVERAGE	CRITICAL NUMBER
Rural	One-Lane	1.12	4	3.75	9
	Two-Lane	1.95	6	6.49	14
	Three-Lane	10.05	19	33.50	49
	Four-Lane Divided (Non-Interstate or Parkway)	6.66	14	22.20	35
	Four-Lane Undivided	17.10	28	57.00	77
	Interstate	6.79	14	22.64	35
	Parkway	2.32	7	7.72	15
	All Rural	2.16	6	7.21	15
Urban	Two-Lane	21.02	33	70.07	92
	Three-Lane	22.95	36	76.50	100
	Four-Lane Divided	48.78	67	162.59	196
	Four-Lane Undivided	84.77	109	282.56	326
	Interstate	38.05	54	126.82	156
	Parkway	5.50	12	18.32	30
	All Urban**	31.76	47	105.88	133

* The length of a spot is defined to be 0.3 mile.
** Includes small number of miles of one-, five- and six-lane highways.

Table 7. ACCIDENT RATES BY COUNTY FOR STATE-MAINTAINED SYSTEM AND ALL ROADS (1988-1992)

	STATE-MAINTAINED		ALL ROADS					
			TOTAL ACCIDENTS		FATAL ACCIDENTS		FATAL OR INJURY ACCIDENTS	
COUNTY	TOTAL ACCIDENTS	ACCIDENT RATE*	NUMBER	RATE*	NUMBER	RATE*	NUMBER	RATE*
Adair	1,746	284	2,583	383	16	2.40	732	108
Allen	1,210	247	2,600	477	22	4.00	665	122
Anderson	1,446	249	2,447	383	11	1.70	694	109
Ballard	824	215	1,060	253	16	3.80	278	66
Barren	3,214	194	6,673	372	40	2.20	1,628	91
Bath	1,233	174	1,713	229	14	1.90	486	65
Bell	2,817	241	4,776	381	39	3.10	1,224	98
Boone	10,327	282	16,824	432	43	1.10	4,646	119
Bourbon	2,268	301	4,091	494	28	3.40	773	93
Boyd	4,660	304	12,222	706	34	2.00	2,472	143
Boyle	2,731	373	5,583	671	23	2.80	1,073	129
Bracken	605	304	992	439	13	5.80	232	103
Breathitt	1,456	199	2,139	274	31	4.00	749	96
Breckinridge	1,093	208	1,672	280	20	3.40	539	90
Bullitt	3,988	180	6,375	263	48	2.00	2,124	88
Butler	1,192	199	1,710	266	17	2.60	545	85
Caldwell	1,417	206	2,216	298	23	3.10	565	76
Calloway	2,145	234	3,723	361	37	3.60	1,092	106
Campbell	7,314	295	16,192	585	44	1.60	3,758	136
Carlisle	264	120	325	133	7	2.90	112	46
Carroll	1,364	176	2,199	270	22	2.70	550	68
Carter	2,334	186	3,548	263	30	2.20	1,087	81
Casey	717	155	1,027	199	12	2.30	293	57
Christian	6,208	289	11,330	485	64	2.70	3,217	138
Clark	3,208	216	6,017	375	36	2.20	1,148	71
Clay	1,679	197	2,530	275	35	3.80	919	100
Clinton	830	226	1,221	305	14	3.50	171	43
Crittenden	807	218	1,247	307	15	3.70	293	72
Cumberland	403	139	672	213	6	1.90	142	45
Daviess	8,492	402	20,354	829	60	2.40	5,189	211
Edmonson	889	222	1,274	291	13	3.00	393	90
Elliott	429	242	535	274	8	4.10	205	105
Estill	1,258	299	1,860	389	20	4.20	422	88
Fayette	28,261	380	63,367	767	130	1.60	11,617	141
Fleming	1,006	230	1,739	354	17	3.50	477	97
Floyd	5,102	285	6,992	363	70	3.60	2,536	132
Franklin	5,985	336	9,946	506	33	1.70	1,918	98
Fulton	661	207	1,597	459	10	2.90	276	79
Gallatin	859	126	1,066	151	11	1.60	365	52
Garrard	864	176	1,302	243	8	1.50	267	50
Grant	2,642	184	3,776	251	27	1.80	1,386	92
Graves	3,367	261	5,868	410	33	2.30	1,632	114
Grayson	2,283	258	3,459	355	40	4.10	1,156	119
Green	936	273	1,392	364	13	3.40	395	103
Greenup	2,948	247	4,927	368	28	2.10	1,201	90
Hancock	635	187	911	245	4	1.10	229	62
Hardin	8,631	235	15,753	394	72	1.80	4,431	111
Harlan	3,305	246	4,803	329	37	2.50	1,353	93
Harrison	1,652	396	3,135	652	24	5.00	587	122
Hart	1,410	113	2,135	164	26	2.00	694	53
Henderson	5,038	263	11,311	542	38	1.80	3,369	161
Henry	1,636	182	2,379	249	18	1.90	603	63
Hickman	377	143	441	154	10	3.50	134	47
Hopkins	5,857	279	10,836	475	53	2.30	2,774	122
Jackson	599	167	928	234	16	4.00	260	66
Jefferson	69,511	342	157,442	692	291	1.30	31,843	140
Jessamine	2,583	336	5,572	622	33	3.70	1,149	128
Johnson	1,757	166	3,103	272	25	2.20	679	60
Kenton	16,606	378	31,379	645	70	1.40	7,779	160
Knott	1,287	172	1,673	209	24	3.00	576	72

Table 7. ACCIDENT RATES BY COUNTY FOR STATE-MAINTAINED SYSTEM AND ALL ROADS (1988-1992) (continued)

	STATE-MAINTAINED		ALL ROADS					
			TOTAL ACCIDENTS		FATAL ACCIDENTS		FATAL OR INJURY ACCIDENTS	
COUNTY	TOTAL ACCIDENTS	ACCIDENT RATE*	NUMBER	RATE*	NUMBER	RATE*	NUMBER	RATE*
Knox	2,169	211	3,834	345	41	3.70	1,085	98
Larue	1,078	164	1,757	246	14	2.00	416	58
Laurel	4,108	164	7,087	268	49	1.80	2,071	78
Lawrence	929	127	1,519	196	33	4.30	491	63
Lee	444	193	735	287	7	2.70	129	50
Leslie	579	104	760	128	15	2.50	315	53
Letcher	2,163	223	3,066	289	31	2.90	807	76
Lewis	940	274	1,668	429	20	5.10	521	134
Lincoln	1,690	222	2,476	299	25	3.00	645	78
Livingston	783	151	1,036	186	13	2.30	325	58
Logan	2,478	257	3,981	376	27	2.60	1,162	110
Lyon	585	76	800	101	5	0.60	247	31
McCracken	7,103	311	16,590	653	55	2.20	3,707	146
McCreary	796	159	1,125	207	23	4.20	328	60
McLean	840	183	1,078	215	11	2.20	303	60
Madison	7,706	274	13,925	464	73	2.40	3,390	113
Magoffin	1,100	212	1,399	251	23	4.10	610	109
Marion	1,639	269	2,729	408	20	3.00	763	114
Marshall	1,393	87	3,904	229	40	2.30	1,124	66
Martin	1,287	247	1,678	299	17	3.00	650	116
Mason	2,896	509	4,887	770	20	3.20	1,180	186
Meade	1,950	259	2,728	328	24	2.90	651	78
Menifee	350	221	455	257	2	1.10	145	82
Mercer	1,992	299	3,617	488	22	3.00	787	106
Metcalfe	736	191	1,079	255	15	3.50	279	66
Monroe	667	148	1,027	207	11	2.20	223	45
Montgomery	2,304	222	3,968	354	29	2.60	766	68
Morgan	1,052	235	1,457	299	18	3.70	499	102
Muhlenberg	3,622	278	5,545	389	30	2.10	1,686	118
Nelson	3,255	251	5,432	383	50	3.50	1,607	113
Nicholas	377	163	636	248	7	2.70	121	47
Ohio	2,131	176	3,033	234	32	2.50	979	75
Oldham	3,075	197	4,661	276	20	1.20	1,021	60
Owen	868	283	1,225	361	16	4.70	362	107
Owsley	370	238	532	312	6	3.50	191	112
Pendleton	974	293	1,670	440	17	4.50	423	111
Perry	3,585	301	5,763	443	54	4.20	1,468	113
Pike	7,407	277	12,739	433	107	3.60	3,912	133
Powell	976	134	1,643	214	22	2.90	499	65
Pulaski	5,187	274	8,935	425	58	2.80	2,516	120
Robertson	69	102	88	114	1	1.30	26	34
Rockcastle	1,714	119	2,395	160	35	2.30	770	52
Rowan	3,007	311	4,752	462	20	1.90	1,030	100
Russell	1,419	227	2,165	316	14	2.00	558	81
Scott	3,611	182	5,902	285	26	1.30	1,341	65
Shelby	3,817	213	5,656	299	42	2.20	1,571	83
Simpson	1,642	151	2,989	261	25	2.20	572	50
Spencer	547	193	724	231	6	1.90	189	60
Taylor	1,871	271	3,770	487	21	2.70	443	57
Todd	893	207	1,288	272	24	5.10	302	64
Trigg	1,253	188	1,786	252	17	2.40	597	84
Trimble	628	262	804	306	13	4.90	260	99
Union	1,623	232	2,539	333	15	2.00	792	104
Warren	10,163	264	22,270	539	80	1.90	5,843	141
Washington	973	189	1,404	252	19	3.40	290	52
Wayne	929	169	2,319	379	18	2.90	455	74
Webster	1,431	186	2,173	262	14	1.70	504	61
Whitley	2,947	139	5,114	227	58	2.60	1,629	72
Wolfe	738	153	1,110	220	18	3.60	372	74
Woodford	2,356	185	4,196	311	23	1.70	904	67
STATEWIDE	381,581	259	722,585	449	3,613	2.25	174,954	109

* Accidents per 100 million vehicle-miles (ACC/100 MVM)

Table 8. COUNTY POPULATION (1990 CENSUS) IN DESCENDING ORDER

COUNTY	POPULATION	COUNTY	POPULATION	COUNTY	POPULATION
Jefferson	664,937	Meade	24,170	Fleming	12,292
Fayette	225,366	Scott	23,867	Pendleton	12,036
Kenton	142,031	Johnson	23,248	Jackson	11,955
Hardin	89,240	Clay	21,746	Powell	11,686
Daviess	87,189	Taylor	21,146	Larue	11,679
Campbell	83,666	Ohio	21,105	Morgan	11,648
Warren	76,673	Grayson	21,050	Garrard	11,579
Pike	72,583	Rowan	20,353	Monroe	11,401
Christian	68,941	Lincoln	20,045	Butler	11,245
McCracken	62,879	Woodford	19,955	Todd	10,940
Boone	57,589	Montgomery	19,561	Washington	10,441
Madison	57,508	Bourbon	19,236	Green	10,371
Boyd	51,150	Mercer	19,148	Trigg	10,361
Pulaski	49,489	Knott	17,906	Edmonson	10,357
Bullitt	47,567	Wayne	17,468	Bath	9,692
Hopkins	46,126	Mason	16,666	McLean	9,628
Franklin	43,781	Union	16,557	Carroll	9,292
Floyd	43,586	Marion	16,499	Crittenden	9,196
Laurel	43,438	Breckinridge	16,312	Clinton	9,135
Henderson	43,044	Harrison	16,248	Livingston	9,062
Greenup	36,742	Grant	15,737	Owen	9,035
Harlan	36,574	Breathitt	15,703	Metcalfe	8,963
Barren	34,001	McCreary	15,603	Fulton	8,271
Graves	33,550	Adair	15,360	Ballard	7,902
Whitley	33,326	Simpson	15,145	Hancock	7,864
Oldham	33,263	Hart	14,890	Bracken	7,766
Bell	31,506	Rockcastle	14,803	Lee	7,422
Muhlenberg	31,318	Russell	14,716	Spencer	6,801
Calloway	30,735	Allen	14,628	Cumberland	6,784
Jessamine	30,508	Estill	14,614	Nicholas	6,725
Perry	30,283	Anderson	14,571	Lyon	6,624
Nelson	29,710	Casey	14,211	Wolfe	6,503
Knox	29,676	Lawrence	13,998	Elliott	6,455
Clark	29,496	Webster	13,955	Trimble	6,090
Marshall	27,205	Leslie	13,642	Hickman	5,566
Letcher	27,000	Caldwell	13,232	Gallatin	5,393
Boyle	25,641	Magoffin	13,077	Carlisle	5,238
Shelby	24,824	Lewis	13,029	Menifee	5,092
Logan	24,416	Henry	12,823	Owsley	5,036
Carter	24,340	Martin	12,526	Robertson	2,124

Table 9. AVERAGE AND CRITICAL ACCIDENT RATES BY POPULATION CATEGORY
(1988-1992 DATA)

POPULATION CATEGORY	NUMBER OF COUNTIES IN CATEGORY	TOTAL POPULATION	TOTAL MILEAGE DRIVEN (100/MVM)
UNDER 10,000	26	187,659	101.139
10,000 - 14,999	29	366,706	185.352
15,000 - 24,999	28	543,414	274.101
25,000 - 50,000	24	847,565	390.310
OVER 50,000	13	1,739,952	656.710

POPULATION CATEGORY	TOTAL NUMBER OF ACCIDENTS	ACCIDENTS PER 100 MVM	CRITICAL ACCIDENT RATE (ACC/100 MVM)	NUMBER OF COUNTIES AT OR ABOVE CRITICAL RATE
UNDER 10,000	24,281	240	286	8
10,000 - 14,999	48,798	263	301	8
15,000 - 24,999	92,376	337	371	10
25,000 - 50,000	146,743	376	404	8
OVER 50,000	410,387	625	645	5

POPULATION CATEGORY	TOTAL NUMBER OF FATAL ACCIDENTS	FATAL ACCIDENTS PER 100 MVM	CRITICAL FATAL RATE (ACC/100 MVM)	NUMBER OF COUNTIES AT OR ABOVE CRITICAL RATE
UNDER 10,000	270	2.67	8.08	0
10,000 - 14,999	529	2.85	7.09	0
15,000 - 24,999	712	2.60	5.82	0
25,000 - 50,000	979	2.51	4.92	0
OVER 50,000	1,123	1.71	2.82	1

POPULATION CATEGORY	TOTAL NUMBER OF FATAL OR INJURY ACCIDENTS	FATAL OR INJURY ACCIDENTS PER 100 MVM	CRITICAL FATAL OR INJURY ACCIDENT RATE (ACC/100 MVM)	NUMBER OF COUNTIES AT OR ABOVE CRITICAL RATE
UNDER 10,000	6,422	63.5	87.4	5
10,000 - 14,999	13,941	75.2	95.4	9
15,000 - 24,999	23,552	85.9	103.2	8
25,000 - 50,000	39,235	100.5	115.0	7
OVER 50,000	91,804	139.8	149.4	2

TABLE 10. ACCIDENT RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(1988-1992 DATA)(ALL ROADS)

COUNTY	NUMBER OF ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 100 MVM)	
POPULATION CATEGORY UNDER 10,000			
Fulton	1597	459	*
Bracken	992	439	*
Owen	1225	361	*
Owsley	532	312	*
Crittenden	1247	307	*
Trimble	804	306	*
Clinton	1221	305	*
Lee	735	287	*
Elliott	535	274	
Carroll	2199	270	
Menifee	455	257	
Metcalfe	1079	255	
Ballard	1060	253	
Nicholas	636	248	
Hancock	911	245	
Spencer	724	231	
Bath	1713	229	
Wolfe	1110	220	
McLean	1078	215	
Cumberland	672	213	
Livingston	1036	186	
Hickman	441	154	
Gallatin	1066	151	
Carlisle	325	133	
Robertson	88	114	
Lyon	800	101	
POPULATION CATEGORY 10,000-14,999			
Allen	2600	477	*
Pendleton	1670	440	*
Lewis	1668	429	*
Estill	1860	389	*
Anderson	2447	383	*
Green	1392	364	*
Fleming	1739	354	*
Russell	2165	316	*
Morgan	1457	299	
Martin	1678	299	
Caldwell	2216	298	
Edmonson	1274	291	
Todd	1288	272	
Butler	1710	266	
Webster	2173	262	
Trigg	1786	252	
Washington	1404	252	
Magoffin	1399	251	
Henry	2379	249	
Larue	1757	246	
Garrard	1302	243	
Jackson	928	234	
Powell	1643	214	
Monroe	1027	207	
Casey	1027	199	
Lawrence	1519	196	
Hart	2135	164	
Rockcastle	2395	160	
Leslie	760	128	
POPULATION CATEGORY 15,000-24,999			
Mason	4887	770	*
Harrison	3135	652	*
Bourbon	4091	494	*
Mercer	3617	488	*
Taylor	3770	487	*
Rowan	4752	462	*
Marion	2729	408	*
Adair	2583	383	*
Wayne	2319	379	*
Logan	3981	376	*
Grayson	3459	355	
Montgomery	3968	354	
Union	2539	333	
Meade	2728	328	
Woodford	4196	311	
Lincoln	2476	299	
Shelby	5656	299	
Scott	5902	285	
Breckinridge	1672	280	
Clay	2530	275	
Breathitt	2139	274	
Johnson	3103	272	
Carter	3548	263	
Simpson	2989	261	
Grant	3776	251	
Ohio	3033	234	
Knott	1673	209	
McCreary	1125	207	
POPULATION CATEGORY 25,000-50,000			
Boyle	5583	671	*
Jessamine	5572	622	*
Henderson	11311	542	*
Franklin	9946	506	*
Hopkins	10836	475	*
Perry	5763	443	*
Pulaski	8935	425	*
Graves	5868	410	*
Muhlenberg	5545	389	
Nelson	5432	383	
Bell	4776	381	
Clark	6017	375	
Barren	6673	372	
Greenup	4927	368	
Floyd	6992	363	
Calloway	3723	361	
Knox	3834	345	
Harlan	4803	329	
Letcher	3066	289	
Oldham	4661	276	
Laurel	7087	268	
Bullitt	6375	263	
Marshall	3904	229	
Whitley	5114	227	
POPULATION CATEGORY OVER 50,000			
Daviess	20354	829	*
Fayette	63367	767	*
Boyd	12222	706	*
Jefferson	157442	692	*
McCracken	16590	653	*
Kenton	31379	645	
Campbell	16192	585	
Warren	22270	539	
Christian	11330	485	
Madison	13925	464	
Pike	12739	433	
Boone	16824	432	
Hardin	15753	394	

* Critical accident rate

TABLE 11. ACCIDENT RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(1988-1992 DATA)(STATE-MAINTAINED SYSTEM)

COUNTY	NUMBER OF ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 100 MVM)	
POPULATION CATEGORY UNDER 10,000			
Bracken	605	304	*
Owen	868	283	*
Trimble	628	262	*
Elliott	429	242	*
Owsley	370	238	*
Clinton	830	226	*
Menifee	350	221	*
Crittenden	807	218	
Ballard	824	215	
Fulton	661	207	
Lee	444	193	
Spencer	547	193	
Metcalfe	736	191	
Hancock	635	187	
McLean	840	183	
Carroll	1364	176	
Bath	1233	174	
Nicholas	377	163	
Wolfe	738	153	
Livingston	783	151	
Hickman	377	143	
Cumberland	403	139	
Gallatin	859	126	
Carlisle	264	120	
Robertson	69	102	
Lyon	585	76	
POPULATION CATEGORY 10,000-14,999			
Estill	1258	299	*
Pendleton	974	293	*
Lewis	940	274	*
Green	936	273	*
Anderson	1446	249	*
Allen	1210	247	*
Martin	1287	247	*
Morgan	1052	235	*
Fleming	1006	230	*
Russell	1419	227	*
Edmonson	889	222	*
Magoffin	1100	212	
Todd	893	207	
Caldwell	1417	206	
Butler	1192	199	
Washington	973	189	
Trigg	1253	188	
Webster	1431	186	
Henry	1636	182	
Garrard	864	176	
Jackson	599	167	
Larue	1078	164	
Casey	717	155	
Monroe	667	148	
Powell	976	134	
Lawrence	929	127	
Rockcastle	1714	119	
Hart	1410	113	
Leslie	579	104	
POPULATION CATEGORY 15,000-24,999			
Mason	2896	509	*
Harrison	1652	396	*
Rowan	3007	311	*
Bourbon	2268	301	*
Mercer	1992	299	*
Adair	1746	284	*
Taylor	1871	271	*
Marion	1639	269	*
Meade	1950	259	*
Grayson	2283	258	*
Logan	2478	257	*
Union	1623	232	
Lincoln	1690	222	
Montgomery	2304	222	
Shelby	3817	213	
Breckinridge	1093	208	
Breathitt	1456	199	
Clay	1679	197	
Carter	2334	186	
Woodford	2356	185	
Grant	2642	184	
Scott	3611	182	
Ohio	2131	176	
Knott	1287	172	
Wayne	929	169	
Johnson	1757	166	
McCreary	796	159	
Simpson	1642	151	
POPULATION CATEGORY 25,000-50,000			
Boyle	2731	373	*
Franklin	5985	336	*
Jessamine	2583	336	*
Perry	3585	301	*
Floyd	5102	285	*
Hopkins	5857	279	*
Muhlenberg	3622	278	*
Pulaski	5187	274	*
Henderson	5038	263	*
Graves	3367	261	*
Nelson	3255	251	
Greenup	2948	247	
Harlan	3305	246	
Bell	2817	241	
Calloway	2145	234	
Letcher	2163	223	
Clark	3208	216	
Knox	2169	211	
Oldham	3075	197	
Barren	3214	194	
Bullitt	3988	180	
Laurel	4108	164	
Whitley	2947	139	
Marshall	1393	87	
POPULATION CATEGORY OVER 50,000			
Daviess	8492	402	*
Fayette	28261	380	*
Kenton	16606	378	*
Jefferson	69511	342	*
McCracken	7103	311	
Boyd	4660	304	
Campbell	7314	295	
Christian	6208	289	
Boone	10327	282	
Pike	7407	277	
Madison	7706	274	
Warren	10163	264	
Hardin	8631	235	

* Critical accident rate

TABLE 12. INJURY OR FATAL ACCIDENT RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED) (1988-1992 DATA)(ALL ROADS)

COUNTY	NUMBER OF ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 100 MVM)	
POPULATION CATEGORY UNDER 10,000			
Owsley	191	112	*
Owen	362	107	*
Elliott	205	105	*
Bracken	232	103	*
Trimble	260	99	*
Menifee	145	82	
Fulton	276	79	
Wolfe	372	74	
Crittenden	293	72	
Carroll	550	68	
Ballard	278	66	
Metcalfe	279	66	
Bath	486	65	
Hancock	229	62	
Spencer	189	60	
McLean	303	60	
Livingston	325	58	
Gallatin	365	52	
Lee	129	50	
Nicholas	121	47	
Hickman	134	47	
Carlisle	112	46	
Cumberland	142	45	
Clinton	171	43	
Robertson	26	34	
Lyon	247	31	
POPULATION CATEGORY 10,000-14,999			
Lewis	521	134	*
Allen	665	122	*
Martin	650	116	*
Pendleton	423	111	*
Anderson	694	109	*
Magoffin	610	109	*
Green	395	103	*
Morgan	499	102	*
Fleming	477	97	*
Edmonson	393	90	
Estill	422	88	
Butler	545	85	
Trigg	597	84	
Russell	558	81	
Caldwell	565	76	
Jackson	260	66	
Powell	499	65	
Todd	302	64	
Lawrence	491	63	
Henry	603	63	
Webster	504	61	
Larue	416	58	
Casey	293	57	
Hart	694	53	
Leslie	315	53	
Washington	290	52	
Rockcastle	770	52	
Garrard	267	50	
Monroe	223	45	
POPULATION CATEGORY 15,000-24,999			
Mason	1180	186	*
Harrison	587	122	*
Grayson	1156	119	*
Marion	763	114	*
Logan	1162	110	*
Adair	732	108	*
Mercer	787	106	*
Union	792	104	*
Clay	919	100	
Rowan	1030	100	
Breathitt	749	96	
Bourbon	773	93	
Grant	1386	92	
Breckinridge	539	90	
Shelby	1571	83	
Carter	1087	81	
Lincoln	645	78	
Meade	651	78	
Ohio	979	75	
Wayne	455	74	
Knott	576	72	
Montgomery	766	68	
Woodford	904	67	
Scott	1341	65	
Johnson	679	60	
McCreary	328	60	
Taylor	443	57	
Simpson	572	50	
POPULATION CATEGORY 25,000-50,000			
Henderson	3369	161	*
Floyd	2536	132	*
Boyle	1073	129	*
Jessamine	1149	128	*
Hopkins	2774	122	*
Pulaski	2516	120	*
Muhlenberg	1686	118	*
Graves	1632	114	
Perry	1468	113	
Nelson	1607	113	
Calloway	1092	106	
Bell	1224	98	
Knox	1085	98	
Franklin	1918	98	
Harlan	1353	93	
Barren	1628	91	
Greenup	1201	90	
Bullitt	2124	88	
Laurel	2071	78	
Letcher	807	76	
Whitley	1629	72	
Clark	1148	71	
Marshall	1124	66	
Oldham	1021	60	
POPULATION CATEGORY OVER 50,000			
Daviess	5189	211	*
Kenton	7779	160	*
McCracken	3707	146	
Boyd	2472	143	
Fayette	11617	141	
Warren	5843	141	
Jefferson	31843	140	
Christian	3217	138	
Campbell	3758	136	
Pike	3912	133	
Boone	4646	119	
Madison	3390	113	
Hardin	4431	111	

* Critical accident rate

TABLE 13. FATAL ACCIDENT RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(1988-1992 DATA)(ALL ROADS)

COUNTY	NUMBER OF ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 100 MVM)
POPULATION CATEGORY UNDER 10,000		
Bracken	13	5.8
Trimble	13	4.9
Owen	16	4.7
Elliott	8	4.1
Ballard	16	3.8
Crittenden	15	3.7
Wolfe	18	3.6
Clinton	14	3.5
Metcalfe	15	3.5
Hickman	10	3.5
Owsley	6	3.5
Fulton	10	2.9
Carlisle	7	2.9
Carroll	22	2.7
Nicholas	7	2.7
Lee	7	2.7
Livingston	13	2.3
McLean	11	2.2
Cumberland	6	1.9
Spencer	6	1.9
Bath	14	1.9
Gallatin	11	1.6
Robertson	1	1.3
Menifee	2	1.1
Hancock	4	1.1
Lyon	5	0.6
POPULATION CATEGORY 10,000-14,999		
Lewis	20	5.1
Todd	24	5.1
Pendleton	17	4.5
Lawrence	33	4.3
Estill	20	4.2
Magoffin	23	4.1
Allen	22	4.0
Jackson	16	4.0
Morgan	18	3.7
Fleming	17	3.5
Washington	19	3.4
Green	13	3.4
Caldwell	23	3.1
Martin	17	3.0
Edmonson	13	3.0
Powell	22	2.9
Butler	17	2.6
Leslie	15	2.5
Trigg	17	2.4
Rockcastle	35	2.3
Casey	12	2.3
Monroe	11	2.2
Hart	26	2.0
Larue	14	2.0
Russell	14	2.0
Henry	18	1.9
Anderson	11	1.7
Webster	14	1.7
Garrard	8	1.5
POPULATION CATEGORY 15,000-24,999		
Harrison	24	5.0
McCreary	23	4.2
Grayson	40	4.1
Breathitt	31	4.0
Clay	35	3.8
Bourbon	28	3.4
Breckinridge	20	3.4
Mason	20	3.2
Marion	20	3.0
Lincoln	25	3.0
Knott	24	3.0
Mercer	22	3.0
Meade	24	2.9
Wayne	18	2.9
Taylor	21	2.7
Montgomery	29	2.6
Logan	27	2.6
Ohio	32	2.5
Adair	16	2.4
Johnson	25	2.2
Carter	30	2.2
Shelby	42	2.2
Simpson	25	2.2
Union	15	2.0
Rowan	20	1.9
Grant	27	1.8
Woodford	23	1.7
Scott	26	1.3
POPULATION CATEGORY 25,000-50,000		
Perry	54	4.2
Jessamine	33	3.7
Knox	41	3.7
Floyd	70	3.6
Calloway	37	3.6
Nelson	50	3.5
Bell	39	3.1
Letcher	31	2.9
Pulaski	58	2.8
Boyle	23	2.8
Whitley	58	2.6
Harlan	37	2.5
Graves	33	2.3
Marshall	40	2.3
Hopkins	53	2.3
Barren	40	2.2
Clark	36	2.2
Muhlenberg	30	2.1
Greenup	28	2.1
Bullitt	48	2.0
Henderson	38	1.8
Laurel	49	1.8
Franklin	33	1.7
Oldham	20	1.2
POPULATION CATEGORY OVER 50,000		
Pike	107	3.6 *
Christian	64	2.7
Madison	73	2.4
Daviess	60	2.4
McCracken	55	2.2
Boyd	34	2.0
Warren	80	1.9
Hardin	72	1.8
Campbell	44	1.6
Fayette	130	1.6
Kenton	70	1.4
Jefferson	291	1.3
Boone	43	1.1

* Critical accident rate

TABLE 14. MISCELLANEOUS ACCIDENT DATA FOR EACH COUNTY

COUNTY	NUMBER OF ACCIDENTS BY YEAR 1988	1989	1990	1991	1992	1988-1992 AVERAGE	1992 PERCENT CHANGE*	PERCENT OF ACCIDENTS INVOLVING ALCOHOL	PERCENT OF ACCIDENTS INVOLVING DRUGS	PERCENT FATAL ACCIDENTS	PERCENT INJURY OR FATAL ACCIDENTS	PERCENT OF DRIVERS USING SAFETY BELTS	PERCENT OF ACCIDENTS INVOLVING SPEEDING
Adair	498	506	532	467	580	501	15.8	5.5	0.5	0.62	28.3	18.8	6.3
Allen	511	591	532	452	514	522	-1.4	6.3	0.7	0.85	25.6	20.4	10.1
Anderson	492	498	531	497	429	505	-15.0	5.8	0.2	0.45	28.4	32.7	9.6
Ballard	218	217	212	173	240	205	17.1	6.8	0.3	1.51	26.2	37.6	12.2
Barren	1,344	1,428	1,345	1,243	1,313	1,340	-2.0	4.1	0.2	0.60	24.4	28.5	4.0
Bath	327	379	336	332	339	344	-1.3	6.7	0.2	0.82	28.4	23.5	14.0
Ball	1,033	1,034	925	896	888	972	-8.6	6.3	0.7	0.82	25.6	30.8	8.4
Boone	3,297	3,574	3,282	3,204	3,467	3,339	3.8	4.6	0.2	0.26	27.6	52.7	8.1
Bourbon	804	937	798	785	767	831	-7.7	6.3	0.1	0.68	18.9	34.6	11.3
Boyd	2,424	2,614	2,593	2,311	2,280	2,486	-8.3	4.0	0.2	0.28	20.2	38.4	5.6
Boyle	1,123	1,149	1,157	1,140	1,014	1,142	-11.2	3.1	0.1	0.41	19.2	35.7	6.3
Bracken	192	203	211	172	214	195	10.0	6.5	0.1	1.31	23.4	22.1	8.1
Breathitt	410	450	441	380	458	420	9.0	8.4	0.5	1.45	35.0	20.7	12.1
Breckinridge	357	328	360	327	300	343	-12.5	5.7	0.1	1.20	32.2	26.6	6.3
Bullitt	1,205	1,266	1,317	1,195	1,392	1,246	11.7	5.6	0.2	0.75	33.3	40.7	8.0
Butler	369	410	362	281	288	356	-19.0	3.8	0.2	0.99	31.9	20.9	7.1
Caldwell	453	449	488	401	425	448	-5.1	6.2	0.2	1.04	25.5	24.7	7.3
Calloway	1,128	1,088	833	332	342	845	-59.5	5.5	0.2	0.99	29.3	24.0	8.0
Campbell	3,255	3,351	3,320	3,221	3,045	3,287	-7.4	5.1	0.3	0.27	23.2	49.3	5.7
Carlisle	57	61	105	62	40	71	-43.9	6.5	0.6	2.15	34.5	24.0	15.4
Carroll	422	447	496	362	472	432	9.3	8.1	0.3	1.00	25.0	34.8	12.9
Carter	673	714	770	685	706	711	-0.6	6.5	0.1	0.85	30.6	19.3	13.2
Casey	143	218	244	206	216	203	6.5	7.1	0.3	1.17	28.5	18.9	14.5
Christian	2,295	2,329	2,274	2,113	2,319	2,253	2.9	6.7	0.2	0.56	28.4	39.0	9.4
Clark	1,321	1,320	1,173	1,057	1,146	1,218	-5.9	6.3	0.4	0.60	19.1	32.3	10.1
Clay	529	524	531	449	497	508	-2.2	8.7	2.6	1.38	36.3	18.0	14.5
Clinton	253	239	199	263	267	239	11.9	6.0	0.1	1.15	14.0	12.2	3.5
Crittenden	305	262	252	198	230	254	-9.5	4.2	0.4	1.20	23.5	13.8	4.8
Cumberland	113	99	137	157	166	127	31.2	5.8	0.1	0.89	21.1	17.4	4.9
Daviess	4,046	4,382	4,203	3,804	3,919	4,109	-4.6	5.1	0.3	0.29	25.5	35.6	5.2
Edmonson	253	232	263	242	284	248	14.7	6.4	0.5	1.02	30.8	31.9	18.4
Elliott	125	107	120	98	85	113	-24.4	15.3	0.7	1.50	38.3	19.0	15.9
Estill	407	387	396	276	394	367	7.5	6.8	0.3	1.08	22.7	17.4	8.9
Fayette	13,086	13,149	12,757	11,968	12,407	12,740	-2.6	4.7	0.2	0.21	18.3	72.0	3.9
Fleming	363	365	345	339	327	353	-7.4	5.9	0.2	0.98	27.4	21.7	8.7
Floyd	1,375	1,458	1,470	1,320	1,369	1,406	-2.6	8.2	0.4	1.00	36.3	33.7	16.3
Franklin	2,056	2,150	1,945	1,828	1,967	1,995	-1.4	5.5	0.2	0.33	19.3	42.6	9.7
Fulton	345	349	339	261	303	324	-6.3	4.9	0.6	0.63	17.3	20.7	4.4
Gallatin	214	230	232	187	203	216	-5.9	9.4	0.1	1.03	34.2	38.1	21.6
Garrard	253	289	247	267	246	264	-6.8	5.1	0.2	0.61	20.5	28.4	14.3
Grant	719	829	688	735	805	743	8.4	5.0	0.2	0.72	36.7	43.9	15.3
Graves	1,193	1,297	1,207	1,056	1,115	1,188	-6.2	5.2	0.3	0.56	27.8	26.2	7.3
Grayson	667	685	748	580	779	670	16.3	5.3	0.1	1.16	33.4	28.2	6.4
Green	293	272	312	223	292	275	6.2	2.4	0.1	0.93	28.4	12.5	3.2
Greenup	991	1,038	1,064	947	887	1,010	-12.2	5.3	0.3	0.57	24.4	35.5	8.3
Hancock	173	196	212	168	162	187	-13.5	6.1	0.0	0.44	25.1	34.8	9.7
Hardin	3,399	3,324	3,252	2,739	3,039	3,179	-4.4	3.7	0.1	0.46	28.1	53.6	5.8
Harlan	962	940	1,032	926	943	965	-2.3	6.7	0.4	0.77	28.2	28.0	13.2
Harrison	623	696	633	582	601	634	-5.1	5.4	0.3	0.77	18.7	26.0	7.2
Hart	390	471	417	387	470	416	12.9	5.1	0.4	1.22	32.5	39.9	5.6
Henderson	2,190	2,303	2,451	2,271	2,096	2,304	-9.0	5.0	0.1	0.34	29.8	35.3	5.7
Henry	507	496	487	433	456	481	-5.1	8.2	0.3	0.76	25.3	34.7	18.9
Hickman	93	90	85	78	95	87	9.8	6.1	0.7	2.27	30.4	33.1	12.5
Hopkins	2,162	2,210	2,369	2,044	2,051	2,196	-6.6	4.0	0.2	0.49	25.6	32.8	8.6
Jackson	171	193	183	191	190	185	3.0	5.6	0.6	1.72	28.0	18.0	13.3
Jefferson	34,314	32,846	31,559	28,911	29,812	31,908	-6.6	4.2	0.1	0.18	20.2	62.3	4.2
Jessamine	990	1,156	1,137	1,104	1,185	1,097	8.0	4.4	0.1	0.59	20.6	47.5	8.2
Johnson	624	641	659	569	610	623	-2.1	4.3	0.6	0.81	21.9	30.8	8.4
Kenton	6,703	6,704	6,418	5,757	5,797	6,396	-9.4	5.7	0.3	0.22	24.8	50.2	5.9
Knott	310	318	378	307	360	328	9.7	7.9	0.2	1.43	34.4	31.3	11.4
Knox	837	776	772	686	763	768	-0.6	6.6	0.9	1.07	28.3	24.1	14.2

TABLE 14. MISCELLANEOUS ACCIDENT DATA FOR EACH COUNTY

COUNTY	NUMBER OF ACCIDENTS BY YEAR 1988	1989	1990	1991	1992	1988-1992 AVERAGE	1992 PERCENT CHANGE*	PERCENT OF ACCIDENTS INVOLVING ALCOHOL	PERCENT OF ACCIDENTS INVOLVING DRUGS	PERCENT FATAL ACCIDENTS	PERCENT INJURY OR FATAL ACCIDENTS	PERCENT OF DRIVERS USING SAFETY BELTS	PERCENT OF ACCIDENTS INVOLVING SPEEDING
Larue	349	333	371	302	402	339	18.7	5.7	0.1	0.80	23.7	22.3	9.0
Laurel	1,449	1,467	1,431	1,263	1,477	1,403	5.3	5.8	0.6	0.69	29.2	31.1	10.7
Lawrence	311	354	287	267	300	305	-1.6	7.2	0.1	2.17	32.3	25.6	7.6
Lee	139	154	149	134	159	144	10.4	6.4	0.4	0.95	17.6	22.4	8.2
Leslie	158	189	151	127	135	156	-13.6	11.8	1.3	1.97	41.4	23.4	23.4
Letcher	591	572	681	599	623	611	2.0	6.5	0.5	1.01	26.3	30.3	12.3
Lewis	365	368	335	296	304	341	-10.9	7.6	0.1	1.20	31.2	16.5	12.4
Lincoln	458	512	536	456	514	491	4.8	7.4	0.2	1.01	26.1	25.4	11.4
Livingston	210	222	226	167	211	206	2.3	7.5	0.3	1.25	31.4	23.7	7.0
Logan	827	853	804	694	803	795	1.1	4.9	0.2	0.68	29.2	27.6	5.7
Lyon	150	106	203	120	221	145	52.7	7.1	0.3	0.63	30.9	43.6	16.6
McCracken	3,303	3,302	3,272	3,283	3,430	3,290	4.3	5.6	0.4	0.33	22.3	38.7	4.7
McCreary	161	162	269	253	280	211	32.5	10.1	0.1	2.04	29.2	25.2	19.6
McLean	207	209	248	230	184	224	-17.7	7.4	0.0	1.02	28.1	30.5	12.2
Madison	2,827	3,089	2,706	2,527	2,776	2,787	-0.4	6.3	0.2	0.52	24.3	41.2	10.6
Magoffin	272	269	285	292	281	280	0.5	11.3	0.8	1.64	43.6	30.9	17.6
Marion	592	538	578	490	531	550	-3.4	9.4	0.1	0.73	28.0	23.4	9.2
Marshall	795	833	862	681	733	793	-7.5	4.7	0.1	1.02	28.8	31.0	7.5
Martin	222	352	368	350	386	323	19.5	4.9	0.6	1.01	38.7	24.9	15.7
Mason	927	1,044	949	944	1,023	966	5.9	5.3	0.1	0.41	24.1	31.3	4.6
Meade	545	575	591	510	507	555	-8.7	9.2	0.3	0.88	23.9	43.9	10.6
Menifee	84	88	109	80	94	90	4.2	8.1	0.0	0.44	31.9	20.5	14.3
Mercer	722	762	742	644	747	718	4.1	5.9	0.6	0.61	21.8	29.6	10.1
Metcalfe	240	253	225	187	174	226	-23.1	4.6	0.2	1.39	25.9	18.4	10.0
Monroe	211	205	219	197	195	208	-6.3	4.9	0.1	1.07	21.7	10.8	7.0
Montgomery	829	883	843	689	724	811	-10.7	5.7	0.2	0.73	19.3	20.5	4.7
Morgan	212	303	336	292	314	286	9.9	9.2	0.5	1.24	34.2	24.8	12.9
Muhlenberg	1,062	1,155	1,219	991	1,118	1,107	1.0	5.9	0.3	0.54	30.4	22.8	11.1
Nelson	1,099	1,165	1,135	959	1,074	1,090	-1.4	5.6	0.1	0.92	29.6	38.8	7.5
Nicholas	105	111	131	147	142	124	15.0	10.4	0.3	1.10	19.0	26.7	10.2
Ohio	601	619	645	568	600	608	-1.4	6.1	0.1	1.06	32.3	28.0	10.6
Oldham	994	1,034	927	832	874	947	-7.7	5.0	0.3	0.43	21.9	53.5	7.7
Owen	202	262	249	248	264	240	9.9	6.3	0.6	1.31	29.6	35.7	14.1
Owsley	99	108	125	97	103	107	-4.0	13.2	1.3	1.13	35.9	8.9	15.8
Pendleton	355	353	360	283	319	338	-5.6	5.3	0.2	1.02	25.3	32.6	6.5
Perry	1,101	1,212	1,194	1,066	1,190	1,143	4.1	6.3	0.3	0.94	25.5	26.2	7.8
Pike	2,279	2,579	2,651	2,651	2,579	2,540	1.5	6.1	0.5	0.84	30.7	32.5	16.5
Powell	353	395	313	296	286	339	-15.7	6.4	0.4	1.34	30.4	29.1	11.3
Pulaski	1,762	1,945	1,823	1,575	1,830	1,776	3.0	4.4	0.3	0.65	28.2	35.0	7.1
Robertson	19	21	14	12	22	17	33.3	12.5	0.0	1.14	29.5	27.8	18.2
Rockcastle	493	488	508	438	468	482	-2.9	6.1	0.2	1.46	32.2	35.6	13.9
Rowan	871	978	1,016	936	951	950	0.1	5.4	0.5	0.42	21.7	31.8	11.6
Russell	369	432	499	385	480	421	13.9	6.6	0.4	0.65	25.8	25.9	9.5
Scott	1,181	1,203	1,146	1,111	1,261	1,160	8.7	3.9	0.2	0.44	22.7	50.8	7.1
Shelby	1,134	1,150	1,194	1,029	1,149	1,127	2.0	5.8	0.3	0.74	27.8	42.0	11.3
Simpson	594	701	599	507	588	600	-2.0	4.8	0.1	0.84	19.1	39.4	4.3
Spencer	151	146	119	134	174	138	26.5	11.9	0.6	0.83	26.1	32.3	15.2
Taylor	691	765	735	762	817	738	10.7	3.9	0.3	0.56	11.8	15.4	5.0
Todd	215	225	284	255	309	245	26.3	7.8	0.1	1.86	23.4	28.9	14.2
Trigg	370	380	358	301	377	352	7.0	5.0	0.4	0.95	33.4	33.9	8.0
Trimble	146	191	160	150	157	162	-2.9	5.3	0.2	1.62	32.3	49.2	12.9
Union	531	529	525	469	485	514	-5.6	5.8	0.3	0.59	31.2	22.1	10.6
Warren	4,073	4,594	4,669	4,432	4,502	4,442	1.4	5.0	0.3	0.36	26.2	53.4	7.0
Washington	253	278	308	260	305	275	11.0	5.5	0.0	1.35	20.7	38.3	8.3
Wayne	431	441	548	413	486	458	6.1	5.6	0.2	0.78	19.6	15.5	9.3
Webster	433	457	511	365	407	442	-7.8	5.2	0.2	0.64	23.2	28.8	5.6
Whitley	1,010	1,107	1,145	866	986	1,032	-4.5	6.0	0.4	1.13	31.9	33.9	14.0
Wolfe	241	244	215	208	202	227	-11.0	7.4	0.3	1.62	33.5	28.3	13.4
Woodford	828	893	921	742	812	846	-4.0	6.3	0.2	0.55	21.5	46.3	12.0
STATEWIDE	147,587	151,422	148,158	134,207	141,211	145,344	-2.8	5.2	0.3	0.50	24.2	45.9	7.3

TABLE 15. ACCIDENT RATES FOR INCORPORATED CITIES HAVING POPULATION OVER 2,500
(FOR STATE-MAINTAINED SYSTEM AND ALL ROADS FOR 1988-1992 DATA)

CITY	POPULATION	STATE MAINTAINED SYSTEM		ALL ROADS	
		TOTAL ACCIDENTS	ACCIDENT RATE*	TOTAL ACCIDENTS	ACCIDENT RATE**
Louisville	269,063	34,405	375	83,684	62.2
Lexington	225,366	14,932	846	62,792	55.7
Owensboro	53,549	2,828	764	15,239	56.9
Covington	43,264	7,444	589	14,147	65.4
Bowling Green	40,641	5,247	735	17,059	83.9
Hopkinsville	29,809	2,595	657	7,696	51.6
Paducah	27,256	2,950	510	11,708	85.9
Frankfort	25,968	2,460	475	6,894	53.1
Henderson	25,945	1,376	705	8,500	65.5
Ashland	23,622	2,152	692	8,049	68.1
Jeffersontown	23,221	350	879	4,519	38.9
Richmond	21,155	1,546	1,051	7,775	73.5
Radcliff	19,772	1,289	490	3,964	40.1
Newport	18,871	3,253	532	5,210	55.2
Florence	18,624	2,545	808	9,397	100.9
Elizabethtown	18,167	2,708	532	7,338	80.8
Madisonville	16,200	1,257	688	6,393	78.9
Fort Thomas	16,032	236	132	1,593	19.9
Erlanger	15,979	1,377	1,186	3,870	48.4
Saint Matthews	15,800	583	954	5,839	73.9
Winchester	15,799	1,267	511	3,772	47.7
Shively	15,535	1,017	1,148	5,179	66.7
Murray	14,439	821	475	2,217	30.7
Nicholasville	13,603	313	232	2,784	40.9
Danville	12,420	746	538	4,036	65.0
Glasgow	12,351	875	347	3,957	64.1
Georgetown	11,414	909	1,033	3,070	53.8
Middlesboro	11,328	1,146	514	2,639	46.6
Somerset	10,733	1,476	708	4,784	89.1
Independence	10,444	234	178	1,695	32.5
Mayfield	9,935	809	989	3,183	64.1
Campbellsville	9,577	668	645	2,800	58.5
Berea	9,126	780	679	1,825	40.0
Paris	8,730	932	479	2,322	53.2
Morehead	8,357	830	1,358	2,688	64.3
Edgewood	8,143	***	***	1,121	27.5
Lyndon	8,037	***	***	42	1.0
Flatwoods	7,799	82	296	933	23.9
Villa Hills	7,739	***	***	365	9.4
Franklin	7,607	500	563	1,782	46.9
Russellville	7,454	938	509	2,228	59.8
Fort Mitchell	7,438	45	484	1,406	37.8
Corbin	7,419	946	544	2,912	78.5
Harrodsburg	7,335	956	845	2,182	59.5
Versailles	7,269	870	661	2,128	58.6
Maysville	7,169	1,427	1,039	3,538	98.7
Bellevue	6,997	40	78	1,300	37.2
Princeton	6,940	632	478	1,386	39.9
Elsmere	6,847	***	***	920	26.9
Bardstown	6,801	898	901	2,805	82.5
Dayton	6,576	***	***	761	23.1
Fort Wright	6,570	68	756	1,909	58.1
Cynthiana	6,497	434	995	1,679	51.7
Pikeville	6,324	640	272	2,329	73.7
Shelbyville	6,238	859	976	2,415	77.4
Lawrenceburg	5,911	466	924	1,182	40.0
London	5,757	730	404	3,087	107.2
Lebanon	5,695	617	702	1,616	56.8
Alexandria	5,592	239	626	1,145	41.0
Taylor Mill	5,530	***	***	841	30.4
Williamsburg	5,493	226	154	1,203	43.8
Hazard	5,416	397	309	2,487	91.8
Mount Sterling	5,362	444	440	2,028	75.6
Monticello	5,357	313	267	1,689	63.1

TABLE 15. ACCIDENT RATES FOR INCORPORATED CITIES HAVING POPULATION OVER 2,500
(FOR STATE-MAINTAINED SYSTEM AND ALL ROADS FOR 1988-1992 DATA)(continued)

CITY	POPULATION	STATE MAINTAINED SYSTEM TOTAL ACCIDENTS	STATE MAINTAINED SYSTEM ACCIDENT RATE*	ALL ROADS TOTAL ACCIDENTS	ALL ROADS ACCIDENT RATE**
Mount Washington	5,226	147	402	772	29.5
Middletown	5,016	***	***	172	6.9
Central City	4,979	551	750	1,435	57.6
Leitchfield	4,965	719	758	1,736	69.9
Shepherdsville	4,805	378	490	1,852	77.1
Ludlow	4,736	27	467	520	22.0
Greenville	4,689	421	500	1,052	44.9
Paintsville	4,354	210	281	1,800	82.7
Scottsville	4,278	632	686	1,453	67.9
Highland Heights	4,223	289	170	1,328	62.9
Wilmore	4,215	73	806	238	11.3
Providence	4,123	165	544	655	31.8
Russell	4,014	127	385	1,537	76.6
Benton	3,899	308	344	1,130	58.0
Lagrange	3,853	221	477	1,129	58.6
Columbia	3,845	544	839	1,531	79.6
Morganfield	3,776	317	833	799	42.3
Carrollton	3,715	187	515	915	49.3
Barbourville	3,658	337	417	942	51.5
Vine Grove	3,586	257	403	414	23.1
Prestonsburg	3,558	586	787	1,952	109.7
Grayson	3,510	341	1,054	1,111	63.3
Lancaster	3,421	295	781	698	40.8
Park Hills	3,321	***	***	361	21.7
Marion	3,320	324	1,047	778	46.9
Southgate	3,266	103	76	543	33.3
Lakeside Park	3,131	454	936	394	25.2
Dawson Springs	3,129	198	442	486	31.1
Cumberland	3,112	59	179	563	36.2
Fulton	3,078	201	328	930	60.4
Flemingsburg	3,071	68	175	675	44.0
Williamstown	3,023	144	461	713	47.2
Graymoor	2,911	***	***	29	2.0
Beaver Dam	2,904	130	413	775	53.4
Cold Spring	2,880	582	761	1,350	93.8
Springfield	2,875	272	628	720	50.1
Oak Grove	2,863	***	***	1,110	77.5
Tompkinsville	2,861	284	924	781	54.6
Irvine	2,836	276	463	789	55.6
Stanton	2,795	184	602	598	42.8
Jenkins	2,751	179	329	352	25.6
Hodgenville	2,721	167	289	756	55.6
Hickman	2,689	34	186	312	23.2
Stanford	2,686	176	255	788	58.7
Harlan	2,686	356	302	1,285	95.7
Mount Vernon	2,654	152	494	826	62.2
Crestview Hills	2,546	***	***	797	62.6
Hartford	2,532	54	160	203	16.0
Calvert City	2,531	31	92	349	27.6

* Accidents per 100 million vehicle-miles.
** Accidents per 1,000 population.
*** No data available.

TABLE 16. MISCELLANEOUS ACCIDENT DATA FOR INCORPORATED CITIES HAVING POPULATION OVER 2,500 (1988-1992 DATA FOR ALL ROADS)

CITY	POPULATION	FATAL ACCIDENTS NUMBER	FATAL ACCIDENTS RATE*	PEDESTRIAN-MOTOR VEHICLE ACCIDENTS NUMBER	PEDESTRIAN-MOTOR VEHICLE ACCIDENTS RATE	BICYCLE-RELATED MOTOR VEHICLE ACCIDENTS NUMBER	BICYCLE-RELATED MOTOR VEHICLE ACCIDENTS RATE	MOTORCYCLE ACCIDENTS NUMBER	MOTORCYCLE ACCIDENTS RATE	PERCENT OF ACCIDENTS INVOLVING SPEEDING	PERCENT OF ACCIDENTS INVOLVING ALCOHOL
Louisville	269,063	116	0.86	1,476	11.0	734	5.5	441	3.3	2.9	3.8
Lexington	225,366	129	1.14	724	6.4	481	4.3	442	3.9	3.8	4.8
Owensboro	53,549	13	0.49	157	5.9	158	5.9	99	3.7	2.7	4.4
Covington	43,264	17	0.79	373	17.2	152	7.0	91	4.2	4.7	5.9
Bowling Green	40,641	15	0.74	155	7.6	95	4.7	112	5.5	4.0	4.0
Hopkinsville	29,809	7	0.47	74	5.0	80	5.4	51	3.4	6.1	5.3
Paducah	27,256	20	1.47	82	6.0	72	5.3	128	9.4	3.5	4.5
Frankfort	25,968	10	0.77	69	5.3	23	1.8	25	1.9	5.2	4.1
Henderson	25,945	14	1.08	100	7.7	85	6.6	74	5.7	3.8	4.1
Ashland	23,622	8	0.68	90	7.6	51	4.3	66	5.6	3.6	3.3
Jeffersontown	23,221	5	0.43	34	2.9	34	2.9	19	1.6	4.7	2.3
Richmond	21,155	9	0.85	80	7.6	22	2.1	35	3.3	4.8	4.8
Radcliff	19,772	8	0.81	18	1.8	28	2.8	41	4.1	2.0	3.8
Newport	18,871	5	0.53	160	17.0	55	5.8	37	3.9	5.2	5.6
Florence	18,624	17	1.83	65	7.0	27	2.9	49	5.3	5.0	3.0
Elizabethtown	18,167	19	2.09	33	3.6	27	3.0	37	4.1	3.2	2.1
Madisonville	16,200	7	0.86	59	7.3	48	5.9	39	4.8	4.5	2.2
Fort Thomas	16,032	2	0.25	15	1.9	22	2.7	7	0.9	7.5	4.2
Erlanger	15,979	5	0.63	40	5.0	28	3.5	29	3.6	4.5	3.4
Saint Matthews	15,800	6	0.76	50	6.3	22	2.8	24	3.0	2.0	1.8
Winchester	15,799	7	0.89	48	6.1	22	2.8	17	2.2	2.9	4.3
Shively	15,535	7	0.90	77	9.9	38	4.9	30	3.9	4.6	4.2
Murray	14,439	6	0.83	22	3.0	16	2.2	17	2.4	5.0	2.1
Nicholasville	13,603	5	0.74	16	2.4	13	1.9	22	3.2	3.0	3.3
Danville	12,420	2	0.32	39	6.3	12	1.9	27	4.3	3.4	1.8
Glasgow	12,351	4	0.65	32	5.2	12	1.9	37	6.0	2.2	3.0
Georgetown	11,414	2	0.35	24	4.2	18	3.2	20	3.5	4.9	2.6
Middlesboro	11,328	11	1.94	42	7.4	15	2.6	20	3.5	4.3	4.7
Somerset	10,733	5	0.93	42	7.8	9	1.7	21	3.9	4.0	2.4
Independence	10,444	7	1.34	12	2.3	7	1.3	16	3.1	5.7	6.3
Mayfield	9,935	3	0.60	30	6.0	26	5.2	23	4.6	1.8	2.2
Campbellsville	9,577	2	0.42	7	1.5	8	1.7	24	5.0	3.1	3.0
Berea	9,126	6	1.31	13	2.8	14	3.1	11	2.4	3.7	4.3
Paris	8,730	3	0.69	16	3.7	17	3.9	15	3.4	3.8	3.9
Morehead	8,357	0	0.00	30	7.2	7	1.7	14	3.4	3.8	3.1
Edgewood	8,143	1	0.25	14	3.4	13	3.2	6	1.5	3.1	1.2
Lyndon	8,037	0	0.00	0	0.0	0	0.0	0	0.0	0.0	0.0
Flatwoods	7,799	2	0.51	13	3.3	2	0.5	6	1.5	3.3	3.6
Villa Hills	7,739	2	0.52	0	0.0	2	0.5	3	0.8	9.3	7.7
Franklin	7,607	5	1.31	16	4.2	8	2.1	12	3.2	2.0	3.2
Russellville	7,454	1	0.27	23	6.2	5	1.3	13	3.5	3.1	4.3
Fort Mitchell	7,438	4	1.08	18	4.8	2	0.5	8	2.2	4.4	5.3
Corbin	7,419	9	2.43	28	7.5	13	3.5	12	3.2	5.1	3.0
Harrodsburg	7,335	3	0.82	25	6.8	5	1.4	21	5.7	3.5	3.3
Versailles	7,269	0	0.00	17	4.7	11	3.0	4	1.1	4.3	2.7
Maysville	7,169	5	1.39	38	10.6	15	4.2	20	5.6	2.4	4.2
Bellevue	6,997	0	0.00	32	9.1	22	6.3	12	3.4	4.3	6.1
Princeton	6,940	4	1.15	14	4.0	6	1.7	6	1.7	4.5	5.5
Elsmere	6,847	1	0.29	14	4.1	16	4.7	2	0.6	6.5	8.3
Bardstown	6,801	8	2.35	28	8.2	12	3.5	14	4.1	2.8	3.4
Dayton	6,576	2	0.61	21	6.4	16	4.9	11	3.3	3.5	4.5
Fort Wright	6,570	3	0.91	12	3.7	9	2.7	10	3.0	6.7	6.4
Cynthiana	6,497	6	1.85	19	5.8	9	2.8	12	3.7	3.5	3.0
Pikeville	6,324	4	1.27	26	8.2	5	1.6	9	2.8	5.8	5.4
Shelbyville	6,238	5	1.60	23	7.4	16	5.1	9	2.9	2.7	2.6
Lawrenceburg	5,911	5	1.69	23	7.8	12	4.1	5	1.7	5.1	4.4
London	5,757	6	2.08	16	5.6	9	3.1	17	5.9	5.2	2.8
Lebanon	5,695	4	1.40	14	4.9	11	3.9	11	3.9	4.9	4.8
Alexandria	5,592	3	1.07	4	1.4	5	1.8	7	2.5	3.8	1.7
Taylor Mill	5,530	4	1.45	6	2.2	1	0.4	4	1.4	11.9	4.4
Williamsburg	5,493	3	1.09	8	2.9	3	1.1	12	4.4	6.3	3.6
Hazard	5,416	12	4.43	21	7.8	5	1.8	13	4.8	1.7	4.1

TABLE 16. MISCELLANEOUS ACCIDENT DATA FOR INCORPORATED CITIES HAVING POPULATION OVER 2,500 (1988-1992 DATA FOR ALL ROADS) (continued)

CITY	POPULATION	FATAL ACCIDENTS NUMBER	FATAL ACCIDENTS RATE*	PEDESTRIAN-MOTOR VEHICLE ACCIDENTS NUMBER	PEDESTRIAN-MOTOR VEHICLE ACCIDENTS RATE	BICYCLE-RELATED MOTOR VEHICLE ACCIDENTS NUMBER	BICYCLE-RELATED MOTOR VEHICLE ACCIDENTS RATE	MOTORCYCLE ACCIDENTS NUMBER	MOTORCYCLE ACCIDENTS RATE	PERCENT OF ACCIDENTS INVOLVING SPEEDING	PERCENT OF ACCIDENTS INVOLVING ALCOHOL
Mount Sterling	5,362	2	0.75	16	6.0	3	1.1	9	3.4	2.8	4.7
Monticello	5,357	1	0.37	28	10.5	9	3.4	11	4.1	5.6	3.7
Mount Washington	5,226	3	1.15	9	3.4	5	1.9	6	2.3	3.6	3.8
Middletown	5,016	0	0.00	0	0.0	0	0.0	0	0.0	0.0	0.0
Central City	4,979	3	1.21	14	5.6	8	3.2	4	1.6	2.8	4.0
Leitchfield	4,965	4	1.61	13	5.2	3	1.2	5	2.0	3.1	2.1
Shepherdsville	4,805	8	3.33	16	6.7	9	3.7	13	5.4	4.4	4.5
Ludlow	4,736	0	0.00	18	7.6	21	8.9	4	1.7	2.1	6.0
Greenville	4,689	0	0.00	7	3.0	3	1.3	7	3.0	5.1	2.3
Paintsville	4,354	4	1.84	18	8.3	5	2.3	3	1.4	2.3	2.5
Scottsville	4,278	6	2.81	12	5.6	0	0.0	14	6.5	5.6	3.7
Highland Heights	4,223	2	0.95	6	2.8	7	3.3	7	3.3	4.7	1.5
Wilmore	4,215	0	0.00	1	0.5	2	0.9	2	0.9	4.6	3.4
Providence	4,123	0	0.00	14	6.8	3	1.5	2	1.0	4.4	6.1
Russell	4,014	5	2.49	2	1.0	4	2.0	11	5.5	3.6	2.3
Benton	3,899	4	2.05	10	5.1	0	0.0	7	3.6	2.5	1.9
Lagrange	3,853	2	1.04	9	4.7	4	2.1	3	1.6	2.3	3.2
Columbia	3,845	1	0.52	8	4.2	0	0.0	16	8.3	3.8	3.1
Morganfield	3,776	2	1.06	13	6.9	6	3.2	2	1.1	4.0	3.8
Carrollton	3,715	3	1.62	20	10.8	13	7.0	5	2.7	4.5	5.2
Barbourville	3,658	1	0.55	9	4.9	0	0.0	8	4.4	5.6	3.4
Vine Grove	3,586	3	1.67	8	4.5	3	1.7	3	1.7	9.2	5.6
Prestonsburg	3,558	7	3.93	19	10.7	4	2.2	16	9.0	3.7	3.4
Grayson	3,510	0	0.00	6	3.4	0	0.0	4	2.3	2.6	3.4
Lancaster	3,421	0	0.00	7	4.1	2	1.2	0	0.0	5.0	3.4
Park Hills	3,321	0	0.00	1	0.6	0	0.0	2	1.2	7.5	6.6
Marion	3,320	2	1.20	2	1.2	2	1.2	5	3.0	1.8	2.7
Southgate	3,266	1	0.61	7	4.3	2	1.2	3	1.8	6.4	4.6
Lakeside Park	3,131	0	0.00	3	1.9	6	3.8	0	0.0	11.7	4.8
Dawson Springs	3,129	1	0.64	5	3.2	1	0.6	6	3.8	6.2	4.1
Cumberland	3,112	5	3.21	4	2.6	0	0.0	8	5.1	8.5	7.3
Fulton	3,078	0	0.00	8	5.2	9	5.8	3	1.9	4.4	3.5
Flemingsburg	3,071	0	0.00	4	2.6	1	0.7	1	0.7	3.7	1.0
Williamstown	3,023	4	2.65	4	2.6	1	0.7	6	4.0	7.4	2.8
Graymoor	2,911	0	0.00	0	0.0	0	0.0	0	0.0	0.0	0.0
Beaver Dam	2,904	1	0.69	4	2.8	3	2.1	5	3.4	1.9	2.8
Cold Spring	2,880	4	2.78	4	2.8	2	1.4	2	1.4	2.4	1.8
Springfield	2,875	5	3.48	14	9.7	1	0.7	3	2.1	3.9	3.8
Oak Grove	2,863	0	0.00	0	0.0	0	0.0	0	0.0	0.0	0.0
Tompkinsville	2,861	0	0.00	7	4.9	2	1.4	3	2.1	2.9	3.6
Irvine	2,836	2	1.41	8	5.6	3	2.1	5	3.5	2.3	5.3
Stanton	2,795	5	3.58	4	2.9	2	1.4	4	2.9	1.8	2.8
Jenkins	2,751	0	0.00	4	2.9	0	0.0	7	5.1	6.3	6.8
Hodgenville	2,721	2	1.47	5	3.7	0	0.0	0	0.0	2.6	1.1
Hickman	2,689	1	0.74	7	5.2	4	3.0	1	0.7	3.2	8.3
Stanford	2,686	5	3.72	7	5.2	1	0.7	7	5.2	2.5	3.6
Harlan	2,686	3	2.23	11	8.2	9	6.7	6	4.5	1.6	2.5
Mount Vernon	2,654	5	3.77	7	5.3	0	0.0	4	3.0	2.9	2.9
Crestview Hills	2,546	0	0.00	0	0.0	0	0.0	0	0.0	0.0	0.0
Hartford	2,532	7	5.53	0	0.0	0	0.0	2	1.6	8.9	2.5
Calvert City	2,531	1	0.79	0	0.0	2	1.6	5	4.0	4.6	1.7
STATEWIDE	1,487,023	719	0.97	5,180	7.0	2,876	3.9	2669	3.6	3.7	3.9

* Accidents Per 10,000 Population

TABLE 17. ACCIDENT RATES ON STATE-MAINTAINED STREETS BY CITY AND POPULATION CATEGORY (1988-1992)

POPULATION CATEGORY	NUMBER OF CITIES	AVERAGE RATE (ACC/100 MVM)	CITY	NUMBER OF ACCIDENTS (1988-1992)	ACCIDENT RATE (ACC/100 MVM)
OVER 200,000	2	451	Lexington	14932	846
			Louisville	34405	375
20,000-55,000	10	639	Richmond	1546	1051
			Jeffersontown	350	879
			Owensboro	2828	764
			Bowling Green	5247	735
			Henderson	1376	705
			Ashland	2152	692
			Hopkinsville	2595	657
			Covington	7444	589
			Paducah	2950	510
			Frankfort	2460	475
10,000-19,999	18	562	Erlanger	1377	1186
			Shively	1017	1148
			Georgetown	909	1033
			Saint Matthews	583	954
			Florence	2545	808
			Somerset	1476	708
			Madisonville	1257	688
			Danville	746	538
			Elizabethtown	2708	532
			Newport	3253	532
			Middlesboro	1146	514
			Winchester	1267	511
			Radcliff	1289	490
			Murray	821	475
			Glasgow	875	347
			Nicholasville	313	232
			Independence	234	178
			Fort Thomas	236	132
5,000-9,999	29	570	Morehead	830	1358
			Maysville	1427	1039
			Cynthiana	434	995
			Mayfield	809	989
			Shelbyville	859	976
			Lawrenceburg	466	924
			Bardstown	898	901
			Harrodsburg	956	845
			Fort Wright	68	756
			Lebanon	617	702
			Berea	780	679
			Versailles	870	661
			Campbellsville	668	645
			Alexandria	239	626
			Franklin	500	563
			Corbin	946	544
			Russellville	938	509
			Fort Mitchell	45	484
			Paris	932	479
			Princeton	632	478
			Mount Sterling	444	440
			London	730	404
			Mount Washington	147	402
			Hazard	397	309
			Flatwoods	82	296
			Pikeville	640	272
			Monticello	313	267
			Williamsburg	226	154
			Bellevue	40	78
2,500-4,999	43	472	Grayson	341	1054
			Marion	324	1047

TABLE 17. ACCIDENT RATES ON STATE-MAINTAINED STREETS BY CITY AND POPULATION CATEGORY (1988-1992)(continued)

POPULATION CATEGORY	NUMBER OF CITIES	AVERAGE RATE (ACC/100 MVM)	CITY	NUMBER OF ACCIDENTS (1988-1992)	ACCIDENT RATE (ACC/100 MVM)
2,500-4,999 (cont.)	43	472	Lakeside Park	454	936
			Tompkinsville	284	924
			Columbia	544	839
			Morganfield	317	833
			Wilmore	73	806
			Prestonsburg	586	787
			Lancaster	295	781
			Cold Spring	582	761
			Leitchfield	719	758
			Central City	551	750
			Scottsville	632	686
			Springfield	272	628
			Stanton	184	602
			Providence	165	544
			Carrollton	187	515
			Greenville	421	500
			Mount Vernon	152	494
			Shepherdsville	378	490
			Lagrange	221	477
			Ludlow	27	467
			Irvine	276	463
			Williamstown	144	461
			Dawson Springs	198	442
			Barbourville	337	417
			Beaver Dam	130	413
			Vine Grove	257	403
			Russell	127	385
			Benton	308	344
			Jenkins	179	329
			Fulton	201	328
			Harlan	356	302
			Hodgenville	167	289
			Paintsville	210	281
			Stanford	176	255
			Hickman	34	186
			Cumberland	59	179
			Flemingsburg	68	175
			Highland Heights	289	170
			Hartford	54	160
			Calvert City	31	92
			Southgate	103	76
1,000-2,499	60	363	Falmouth	137	1564
			Eminence	218	1078
			Morgantown	169	987
			Owingsville	143	941
			Augusta	13	868
			Lacenter	20	861
			Dry Ridge	301	856
			Carlisle	82	842
			Munfordville	92	836
			Jackson	87	689
			Albany	333	688
			Warsaw	88	669
			Junction City	38	664
			Evarts	54	662
			Cadiz	231	624
			Walton	128	594
			Jamestown	59	574
			Elkton	134	545
			Sturgis	121	534
			Uniontown	30	508

TABLE 17. ACCIDENT RATES ON STATE-MAINTAINED STREETS BY CITY AND POPULATION CATEGORY (1988-1992)(continued)

POPULATION CATEGORY	NUMBER OF CITIES	AVERAGE RATE (ACC/100 MVM)	CITY	NUMBER OF ACCIDENTS (1988-1992)	ACCIDENT RATE (ACC/100 MVM)
1,000-2,499 (cont.)	60	363	Raceland	52	502
			Owenton	84	462
			Russell Springs	195	441
			Greensburg	84	437
			Vanceburg	87	431
			West Point	4	427
			Manchester	199	407
			Edmonton	87	401
			Brandenburg	84	400
			Louisa	79	399
			Salyersville	106	396
			Hardinsburg	52	383
			Muldraugh	17	375
			Olive Hill	92	375
			Loyall	12	371
			Livermore	39	362
			Pineville	183	342
			West Liberty	92	334
			Cave City	77	333
			Earlington	36	324
			Nortonville	55	324
			Auburn	49	323
			Eddyville	5	267
			Beattyville	63	266
			South Shore	858	260
			Burkesville	76	259
			Lewisport	14	257
			Clay City	54	238
			Sebree	33	232
			Clay	28	217
			Lebanon Junction	15	193
			Catlettsburg	332	183
			Worthington	11	166
			Cloverport	34	157
			Clinton	34	157
			Burgin	18	117
			Anchorage	25	95
			Horse Cave	13	82
			Liberty	56	72
			Whitesburg	2	7

TABLE 18. TOTAL ACCIDENT RATES BY CITY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(1988-1992 DATA)(ALL ROADS)

COUNTY	NUMBER OF ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 1000 POPULATION)	
POPULATION CATEGORY OVER 200,000			
Louisville	83684	62.2	*
Lexington	62792	55.7	
POPULATION CATEGORY 20,000-55,000			
Paducah	11708	85.9	*
Bowling Green	17059	83.9	*
Richmond	7775	73.5	*
Ashland	8049	68.1	
Henderson	8500	65.5	
Covington	14147	65.4	
Owensboro	15239	56.9	
Frankfort	6894	53.1	
Hopkinsville	7696	51.6	
Jeffersontown	4519	38.9	
POPULATION CATEGORY 10,000-19,999			
Florence	9397	100.9	*
Somerset	4784	89.1	*
Elizabethtown	7338	80.8	*
Madisonville	6393	78.9	*
Saint Matthews	5839	73.9	*
Shively	5179	66.7	*
Danville	4036	65.0	*
Glasgow	3957	64.1	*
Newport	5210	55.2	
Georgetown	3070	53.8	
Erlanger	3870	48.4	
Winchester	3772	47.7	
Middlesboro	2639	46.6	
Nicholasville	2784	40.9	
Radcliff	3964	40.1	
Independence	1695	32.5	
Murray	2217	30.7	
Fort Thomas	1593	19.9	
POPULATION CATEGORY 5,000-9,999			
London	3087	107.2	*
Maysville	3538	98.7	*
Hazard	2487	91.8	*
Bardstown	2805	82.5	*
Corbin	2912	78.5	*
Shelbyville	2415	77.4	*
Mount Sterling	2028	75.6	*
Pikeville	2329	73.7	*
Morehead	2688	64.3	*
Mayfield	3183	64.1	*
Monticello	1689	63.1	*
Russellville	2228	59.8	*
Harrodsburg	2182	59.5	*
Versailles	2128	58.6	*
Campbellsville	2800	58.5	*
Fort Wright	1909	58.1	*
Lebanon	1616	56.8	
Paris	2322	53.2	
Cynthiana	1679	51.7	
Franklin	1782	46.9	
Williamsburg	1203	43.8	
Alexandria	1145	41.0	
Lawrenceburg	1182	40.0	
Berea	1825	40.0	
Princeton	1386	39.9	
Fort Mitchell	1406	37.8	
Bellevue	1300	37.2	
Taylor Mill	841	30.4	
Mount Washington	772	29.5	
Edgewood	1121	27.5	
Elsmere	920	26.9	
Flatwoods	933	23.9	
Dayton	761	23.1	
Villa Hills	365	9.4	
Middletown	172	6.9	
Lyndon	42	1.0	
POPULATION CATEGORY 2,500-4,999			
Prestonsburg	1952	109.7	*
Harlan	1285	95.7	*
Cold Spring	1350	93.8	*
Paintsville	1800	82.7	*
Columbia	1531	79.6	*
Oak Grove	1110	77.5	*
Shepherdsville	1852	77.1	*
Russell	1537	76.6	*
Leitchfield	1736	69.9	*
Scottsville	1453	67.9	*
Grayson	1111	63.3	*
Highland Heights	1328	62.9	*
Crestview Hills	797	62.6	*
Mount Vernon	826	62.2	
Fulton	930	60.4	
Stanford	788	58.7	
Lagrange	1129	58.6	
Benton	1130	58.0	
Central City	1435	57.6	
Hodgenville	756	55.6	
Irvine	789	55.6	
Tompkinsville	781	54.6	
Beaver Dam	775	53.4	
Barbourville	942	51.5	
Springfield	720	50.1	
Carrollton	915	49.3	
Williamstown	713	47.2	
Marion	778	46.9	
Greenville	1052	44.9	
Flemingsburg	675	44.0	
Stanton	598	42.8	
Morganfield	799	42.3	
Lancaster	698	40.8	
Cumberland	563	36.2	
Southgate	543	33.3	
Providence	655	31.8	
Dawson Springs	486	31.1	
Calvert City	349	27.6	
Jenkins	352	25.6	
Lakeside Park	394	25.2	
Hickman	312	23.2	
Vine Grove	414	23.1	
Ludlow	520	22.0	
Park Hills	361	21.7	
Hartford	203	16.0	
Wilmore	238	11.3	
Graymoor	29	2.0	

* Critical accident rate

TABLE 19. FATAL ACCIDENT RATES BY CITY AND POPULATION CATEGORY (IN DESCENDING ORDER WITH CRITICAL RATES IDENTIFIED)(1988-1992 DATA)(ALL ROADS)

COUNTY	NUMBER OF ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Lexington	129	1.14
Louisville	116	0.86
POPULATION CATEGORY 20,000-55,000		
Paducah	20	1.47
Henderson	14	1.08
Richmond	9	0.85
Covington	17	0.79
Frankfort	10	0.77
Bowling Green	15	0.74
Ashland	8	0.68
Owensboro	13	0.49
Hopkinsville	7	0.47
Jeffersontown	5	0.43
POPULATION CATEGORY 10,000-19,999		
Elizabethtown	19	2.09
Middlesboro	11	1.94
Florence	17	1.83
Independence	7	1.34
Somerset	5	0.93
Shively	7	0.90
Winchester	7	0.89
Madisonville	7	0.86
Murray	6	0.83
Radcliff	8	0.81
Saint Matthews	6	0.76
Nicholasville	5	0.74
Glasgow	4	0.65
Erlanger	5	0.63
Newport	5	0.53
Georgetown	2	0.35
Danville	2	0.32
Fort Thomas	2	0.25
POPULATION CATEGORY 5,000-9,999		
Hazard	12	4.43
Corbin	9	2.43
Bardstown	8	2.35
London	6	2.08
Cynthiana	6	1.85
Lawrenceburg	5	1.69
Shelbyville	5	1.60
Taylor Mill	4	1.45
Lebanon	4	1.40
Maysville	5	1.39
Berea	6	1.31
Franklin	5	1.31
Pikeville	4	1.27
Princeton	4	1.15
Mount Washington	3	1.15
Williamsburg	3	1.09
Fort Mitchell	4	1.08
Alexandria	3	1.07
Fort Wright	3	0.91
Harrodsburg	3	0.82
Mount Sterling	2	0.75
Paris	3	0.69
Dayton	2	0.61
Mayfield	3	0.60
Villa Hills	2	0.52
Flatwoods	2	0.51
Campbellsville	2	0.42
Monticello	1	0.37
Elsmere	1	0.29
Russellville	1	0.27
Edgewood	1	0.25
POPULATION CATEGORY 2,500-4,999		
Hartford	7	5.53
Prestonsburg	7	3.93
Mount Vernon	5	3.77
Stanford	5	3.72
Stanton	5	3.58
Springfield	5	3.48
Shepherdsville	8	3.33
Cumberland	5	3.21
Scottsville	6	2.81
Cold Spring	4	2.78
Williamstown	4	2.65
Russell	5	2.49
Harlan	3	2.23
Benton	4	2.05
Paintsville	4	1.84
Vine Grove	3	1.67
Carrollton	3	1.62
Leitchfield	4	1.61
Hodgenville	2	1.47
Irvine	2	1.41
Central City	3	1.21
Marion	2	1.20
Morganfield	2	1.06
Lagrange	2	1.04
Highland Heights	2	0.95
Calvert City	1	0.79
Hickman	1	0.74
Beaver Dam	1	0.69
Dawson Springs	1	0.64
Southgate	1	0.61
Barbourville	1	0.55

* Critical accident rate

TABLE 20. ACCIDENTS INVOLVING ALCOHOL BY COUNTY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)

	NUMBER OF ALCOHOL-RELATED ACCIDENTS (1988-1992)			PERCENT OF TOTAL ACCIDENTS INVOLVING ALCOHOL		
COUNTY	ALL	AGES 16-16	AGES 19-20	ALL	AGES 16-16	AGES 19-20
			POPULATION CATEGORY UNDER 10,000			
Elliott	62	6	10	15.3	7.3	16.6
Owsley	70	3	5	13.2	3.0	9.2
Robertson	11	1	4	12.5	5.3	28.6
Spencer	86	10	5	11.9	6.5	6.2
Nicholas	66	4	9	10.4	3.0	10.4
Gallatin	100	4	8	9.4	2.9	8.2
Menifee	37	9	5	8.1	8.5	10.4
Carroll	178	14	24	8.1	3.8	11.1
Livingston	78	5	7	7.6	2.1	7.7
Wolfe	82	8	9	7.4	4.8	8.8
McLean	80	12	3	7.4	5.6	2.5
Lyon	57	1	5	7.1	0.9	6.1
Ballard	72	3	2	6.8	1.6	2.1
Bath	115	15	18	6.7	4.9	8.4
Bracken	64	7	9	6.5	3.8	8.5
Carlisle	21	2	2	6.5	3.2	6.2
Lee	47	3	2	6.4	2.4	2.6
Owen	77	3	5	6.3	1.3	4.2
Hancock	56	6	0	6.2	2.6	0.0
Hickman	27	4	4	6.1	5.2	13.3
Clinton	73	7	12	6.0	2.4	8.3
Cumberland	39	6	2	5.8	4.6	3.4
Trimble	43	2	2	5.4	1.3	2.1
Fulton	79	5	9	4.9	1.8	6.6
Metcalfe	50	5	8	4.7	2.5	6.2
Crittenden	52	6	7	4.2	2.0	4.9
			POPULATION CATEGORY 10,000 - 14,999			
Leslie	90	6	4	11.9	6.2	5.8
Magoffin	158	17	6	11.3	7.0	3.3
Morgan	134	8	19	9.2	2.8	10.5
Henry	194	22	27	8.2	5.1	8.6
Todd	101	6	11	7.8	3.2	8.2
Lewis	126	15	11	7.5	5.5	6.7
Lawrence	110	9	9	7.2	3.9	6.2
Casey	73	8	10	7.1	3.8	8.4
Estill	126	15	15	6.8	3.8	5.8
Russell	143	20	14	6.6	4.1	6.0
Powell	105	7	11	6.4	2.0	4.8
Edmonson	81	1	10	6.4	0.4	6.9
Allen	164	15	10	6.3	2.4	3.3
Caldwell	138	16	17	6.3	3.5	7.6
Rockcastle	147	9	16	6.2	2.4	5.4
Fleming	103	8	14	5.9	2.4	6.5
Anderson	142	16	24	5.9	2.9	8.0
Larue	101	6	8	5.7	1.5	4.7
Jackson	52	11	8	5.6	5.4	7.8
Washington	77	4	5	5.5	1.4	3.3
Pendleton	89	12	9	5.4	3.3	4.7
Webster	114	12	8	5.3	2.8	3.5
Hart	109	11	7	5.1	3.3	3.2
Trigg	90	6	6	5.1	1.8	3.3
Garrard	66	4	6	5.0	1.7	4.0
Martin	82	9	9	4.9	3.0	5.6
Monroe	50	5	5	4.9	1.9	4.1
Butler	65	8	9	3.9	2.3	4.6
Green	34	6	2	2.4	2.4	1.7
			POPULATION CATEGORY 15,000 - 24,999			
McCreary	114	6	8	10.1	3.0	5.9
Marion	256	28	24	9.3	4.7	7.5
Meade	251	27	25	9.2	4.5	7.3
Clay	219	15	16	8.7	3.3	6.0
Breathitt	179	14	17	8.4	4.5	6.8
Knott	132	11	11	7.9	3.9	7.1
Lincoln	184	18	13	7.4	3.9	5.9
Carter	232	21	24	6.5	3.3	5.0
Bourbon	257	13	17	6.3	1.8	4.7

TABLE 20. ACCIDENTS INVOLVING ALCOHOL BY COUNTY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES) (continued)

	NUMBER OF ALCOHOL-RELATED ACCIDENTS (1987-1991)			PERCENT OF TOTAL ACCIDENTS INVOLVING ALCOHOL		
COUNTY	ALL	AGES 16-18	AGES 19-20	ALL	AGES 16-18	AGES 19-20
			POPULATION CATEGORY 15,000 - 24,999			
Woodford	263	31	36	6.3	3.8	8.1
Ohio	184	14	19	6.1	0.5	5.8
Mercer	213	18	15	5.9	2.3	3.9
Breckinridge	96	14	10	5.8	3.5	6.0
Union	148	24	22	5.8	4.0	7.2
Montgomery	228	30	25	5.8	3.7	5.3
Shelby	327	29	44	5.8	3.0	7.4
Adair	143	14	15	5.6	2.5	4.7
Wayne	129	17	18	5.5	3.2	6.2
Rowan	256	30	35	5.4	3.6	4.0
Mason	261	26	19	5.4	3.2	3.8
Harrison	169	18	22	5.4	3.2	6.8
Grayson	182	14	10	5.3	1.9	2.5
Grant	187	15	21	5.0	2.1	4.8
Logan	196	20	28	4.9	2.4	6.5
Simpson	142	16	15	4.8	2.6	4.5
Johnson	133	10	11	4.3	1.7	3.1
Taylor	147	19	13	3.9	2.4	2.8
Scott	230	26	19	3.9	2.4	3.0
			POPULATION CATEGORY 25,000 - 50,000			
Floyd	570	48	56	8.1	4.0	7.0
Harlan	321	37	26	6.7	4.1	4.4
Knox	252	20	24	6.6	2.8	5.0
Letcher	199	21	23	6.5	4.2	6.3
Bell	303	26	28	6.4	3.2	5.2
Clark	380	32	35	6.4	2.9	5.4
Perry	361	40	33	6.2	4.0	4.6
Whitley	306	22	23	6.0	2.7	4.1
Muhlenberg	327	41	26	5.9	3.4	4.3
Laurel	411	47	35	5.8	3.6	4.3
Nelson	306	21	39	5.6	2.6	6.2
Bullitt	359	28	48	5.6	1.9	5.6
Franklin	552	54	60	5.6	3.4	5.6
Calloway	206	26	26	5.6	3.0	4.3
Greenup	259	29	23	5.3	2.9	4.4
Graves	303	35	26	5.2	2.7	4.0
Henderson	561	39	44	5.0	1.9	4.0
Oldham	231	30	26	5.0	2.5	5.6
Marshall	184	23	16	4.7	2.6	4.0
Jessamine	245	25	21	4.4	2.2	3.2
Pulaski	396	41	44	4.4	2.4	3.9
Barren	271	32	29	4.1	2.3	4.2
Hopkins	438	49	47	4.1	2.1	4.0
Boyle	174	22	18	3.1	2.1	3.0
			POPULATION CATEGORY OVER 50,000			
Christian	754	63	87	6.6	3.5	6.6
Madison	882	80	118	6.4	3.6	5.7
McCracken	930	86	76	5.6	2.6	4.1
Pike	777	80	80	6.1	3.6	5.3
Kenton	1782	113	123	5.7	2.3	3.8
Campbell	820	44	77	5.1	1.6	4.1
Warren	1115	101	111	5.1	2.4	3.3
Boone	775	73	60	4.6	2.5	3.1
Daviess	1041	138	131	5.1	3.1	5.3
Fayette	2986	210	274	4.7	2.7	3.5
Jefferson	6645	491	582	4.2	2.0	3.4
Hardin	590	65	68	3.7	2.3	3.7
Boyd	488	50	29	4.0	2.4	2.4

TABLE 21. ACCIDENTS INVOLVING ALCOHOL BY CITY AND POPULATION CATEGOTY(IN ORDER OF DECREASING PRECENTAGES)

CITY	NUMBER OF ALCOHOL-RELATED ACCIDENTS (1988-1992)	PERCENTAGE OF ACCIDENTS INVOLVING ALCOHOL
POPULATION CATEGORY OVER 200,000		
Lexington	3010	4.8
Louisville	3150	3.8
POPULATION CATEGORY 20,000-55,000		
Covington	828	5.9
Hopkinsville	406	5.3
Richmond	375	4.8
Paducah	530	4.5
Owensboro	668	4.4
Frankfort	282	4.1
Henderson	345	4.1
Bowling Green	681	4.0
Ashland	265	3.3
Jeffersontown	104	2.3
POPULATION CATEGORY 10,000-19,999		
Independence	107	6.3
Newport	292	5.6
Middlesboro	124	4.7
Winchester	162	4.3
Fort Thomas	67	4.2
Shively	216	4.2
Radcliff	152	3.8
Erlanger	130	3.4
Nicholasville	93	3.3
Florence	284	3.0
Glasgow	117	3.0
Georgetown	79	2.6
Somerset	115	2.4
Madisonville	138	2.2
Elizabethtown	157	2.1
Murray	46	2.1
Danville	74	1.8
Saint Matthews	105	1.8
POPULATION CATEGORY 5,000-9,999		
Elsmere	76	8.3
Villa Hills	28	7.7
Fort Wright	122	6.4
Bellevue	79	6.1
Princeton	76	5.5
Pikeville	126	5.4
Fort Mitchell	74	5.3
Lebanon	78	4.8
Mount Sterling	96	4.7
Dayton	34	4.5
Lawrenceburg	52	4.4
Taylor Mill	37	4.4
Russellville	96	4.3
Berea	79	4.3
Maysville	147	4.2
Hazard	101	4.1
Paris	91	3.9
Mount Washington	29	3.8
Monticello	62	3.7
Williamsburg	43	3.6
Flatwoods	34	3.6
Bardstown	94	3.4
Harrodsburg	71	3.3
Franklin	57	3.2
Morehead	84	3.1
Corbin	87	3.0
Cynthiana	50	3.0
Campbellsville	84	3.0
London	87	2.8
Versailles	58	2.7
Shelbyville	62	2.6
Mayfield	70	2.2
Alexandria	20	1.7
Edgewood	13	1.2
Lyndon	0	0.0
Middletown	0	0.0
POPULATION CATEGORY 2,500-4,999		
Hickman	26	8.3
Cumberland	41	7.3
Jenkins	24	6.8
Park Hills	24	6.6
Providence	40	6.1
Ludlow	31	6.0
Vine Grove	23	5.6
Irvine	42	5.3
Carrollton	48	5.2
Lakeside Park	19	4.8
Southgate	25	4.6
Shepherdsville	84	4.5
Dawson Springs	20	4.1
Central City	57	4.0
Morganfield	30	3.8
Springfield	27	3.8
Scottsville	54	3.7
Stanford	28	3.6
Tompkinsville	28	3.6
Fulton	33	3.5
Lancaster	24	3.4
Grayson	38	3.4
Prestonsburg	67	3.4
Barbourville	32	3.4
Wilmore	8	3.4
Lagrange	36	3.2
Columbia	47	3.1
Mount Vernon	24	2.9
Williamstown	20	2.8
Beaver Dam	22	2.8
Stanton	17	2.8
Marion	21	2.7
Hartford	5	2.5
Harlan	32	2.5
Paintsville	45	2.5
Russell	35	2.3
Greenville	24	2.3
Leitchfield	36	2.1
Benton	21	1.9
Cold Spring	24	1.8
Calvert City	6	1.7
Highland Heights	20	1.5
Hodgenville	8	1.1
Flemingsburg	7	1.0
Oak Grove	0	0.0
Crestview Hills	0	0.0
Graymoor	0	0.0

TABLE 22. SUMMARY OF ALCOHOL CONVICTIONS BY COUNTY (1988-1992 DATA)

COUNTY	ALCOHOL CONVICTIONS PER CALENDER YEAR 1988	1989	1990	1991	1992	TOTAL ALCOHOL CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED ACCIDENT
Adair	99	77	96	130	121	523	10.6	3.7
Allen	84	89	73	89	82	417	8.7	2.5
Anderson	95	105	126	93	126	545	10.2	3.8
Ballard	51	47	118	173	107	496	16.5	6.9
Barren	205	213	241	199	189	1,047	9.0	3.9
Bath	57	70	87	62	66	342	10.5	3.0
Bell	319	270	293	246	237	1,365	15.6	4.5
Boone	348	375	418	437	510	2,088	9.8	2.7
Bourbon	174	148	241	233	199	995	15.3	3.9
Boyd	309	275	331	310	325	1,550	8.8	3.2
Boyle	115	98	129	182	139	663	7.6	3.8
Bracken	32	36	51	57	52	228	8.9	3.6
Breathitt	67	91	93	96	110	457	10.4	2.6
Breckinridge	82	74	77	72	62	367	6.5	3.8
Bullitt	192	154	249	300	282	1,177	6.5	3.3
Butler	45	80	60	59	62	306	8.2	4.7
Caldwell	90	81	97	137	129	534	11.7	3.9
Calloway	180	134	247	301	215	1,077	10.3	5.2
Campbell	361	370	373	435	395	1,934	7.0	2.4
Carlisle	16	19	49	50	32	166	8.7	7.9
Carroll	116	106	153	145	156	676	21.2	3.8
Carter	116	134	240	204	160	854	10.9	3.7
Casey	124	93	112	86	112	527	11.4	7.2
Christian	396	337	358	384	495	1,970	12.3	2.6
Clark	289	317	380	287	301	1,574	15.2	4.1
Clay	243	224	284	272	243	1,266	21.0	5.8
Clinton	55	53	114	166	152	540	17.5	7.4
Crittenden	45	44	49	69	53	260	8.2	5.0
Cumberland	67	52	57	66	60	302	13.4	7.7
Daviess	772	743	828	847	887	4,077	13.6	3.9
Edmonson	31	34	35	57	65	222	6.3	2.7
Elliott	20	21	73	38	31	183	9.3	2.2
Estill	119	94	107	143	123	586	12.5	4.7
Fayette	2,128	2,081	2,395	2,528	2,831	11,963	15.3	4.0
Fleming	60	63	79	71	79	352	8.5	3.4
Floyd	519	552	518	401	383	2,373	17.9	4.2
Franklin	403	445	437	438	438	2,161	14.1	3.9
Fulton	84	69	88	94	88	403	15.5	5.1
Gallatin	36	44	51	61	53	245	12.8	2.5
Garrard	51	44	67	70	86	318	7.9	4.8
Grant	169	143	149	184	159	804	13.7	4.3
Graves	188	167	243	248	207	1,053	8.9	3.5
Grayson	141	102	109	154	106	612	8.4	3.4
Green	20	20	27	33	31	131	3.7	3.9
Greenup	263	257	307	340	316	1,483	11.7	5.7
Hancock	30	57	16	25	32	160	5.7	2.9
Hardin	494	536	718	590	541	2,879	10.7	4.9
Harlan	345	383	400	289	272	1,689	15.2	5.3
Harrison	58	46	86	83	130	403	7.2	2.4
Hart	71	96	69	84	75	395	7.7	3.6
Henderson	380	287	367	454	548	2,036	13.7	3.6
Henry	120	112	94	96	80	502	10.8	2.6
Hickman	12	12	20	30	28	102	5.3	3.8
Hopkins	309	324	443	517	480	2,073	13.0	4.7
Jackson	51	37	75	113	87	363	9.9	7.0
Jefferson	4,949	5,464	7,187	5,938	5,616	29,154	12.9	4.4
Jessamine	166	162	233	181	209	951	8.9	3.9
Johnson	183	144	196	171	223	917	12.2	6.9
Kenton	938	777	887	862	1,061	4,525	9.7	2.5
Knott	125	38	94	71	61	389	7.8	2.9
Knox	302	292	388	334	277	1,593	19.6	6.3
Larue	98	111	107	99	86	501	11.7	5.0
Laurel	505	475	557	492	404	2,433	17.3	5.9
Lawrence	125	126	126	126	73	576	13.4	5.2
Lee	66	57	81	84	49	337	15.1	7.2
Leslie	70	106	107	137	98	518	13.3	5.8

TABLE 22. SUMMARY OF ALCOHOL CONVICTIONS BY COUNTY (1988-1992 DATA) (continued)

COUNTY	ALCOHOL CONVICTIONS PER CALENDER YEAR 1988	1989	1990	1991	1992	TOTAL ALCOHOL CONVICTIONS (1988-1992)	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED ACCIDENT
Letcher	161	166	234	198	119	878	10.4	4.4
Lewis	74	66	112	127	130	509	12.1	4.0
Lincoln	124	148	162	116	94	644	10.0	3.5
Livingston	52	57	71	86	73	339	10.1	4.3
Logan	195	245	261	197	189	1,087	13.0	5.5
Lyon	28	56	64	47	40	235	10.3	4.1
McCracken	598	705	972	972	682	3,929	17.2	4.2
McCreary	112	114	238	201	124	789	16.8	6.9
McLean	31	29	29	38	37	164	4.7	2.1
Madison	624	615	798	807	787	3,631	20.0	4.1
Magoffin	143	63	113	110	174	603	15.7	3.8
Marion	72	83	74	132	102	463	8.7	1.8
Marshall	148	173	164	188	134	807	7.9	4.4
Martin	143	78	96	124	118	559	14.3	6.8
Mason	131	106	150	138	166	691	12.4	2.6
Meade	132	147	170	165	152	766	12.0	3.1
Menifee	15	15	28	12	30	100	5.7	2.7
Mercer	142	154	179	168	142	785	11.5	3.7
Metcalfe	59	54	52	69	60	294	9.7	5.9
Monroe	59	34	68	61	62	284	7.3	5.7
Montgomery	189	148	163	163	223	886	13.3	3.9
Morgan	108	90	119	93	95	505	14.3	3.8
Muhlenberg	196	187	316	368	265	1,332	12.6	4.1
Nelson	194	201	245	284	271	1,195	11.4	3.9
Nicholas	46	43	56	47	46	238	10.1	3.6
Ohio	109	97	95	126	115	542	7.6	2.9
Oldham	182	152	142	126	112	714	6.0	3.1
Owen	38	56	56	81	70	301	10.5	3.9
Owsley	25	56	59	54	38	232	14.7	3.3
Pendleton	61	38	47	75	59	280	6.9	3.1
Perry	330	362	369	467	293	1,821	18.9	5.0
Pike	447	463	623	691	477	2,701	11.9	3.5
Powell	56	87	97	77	55	372	9.6	3.5
Pulaski	224	388	485	516	438	2,051	12.2	5.2
Robertson	3	7	18	9	14	51	7.0	4.6
Rockcastle	73	128	135	111	69	516	10.7	3.5
Rowan	450	314	283	245	268	1,560	26.6	6.1
Russell	97	138	137	134	101	607	11.6	4.2
Scott	168	188	200	242	203	1,001	12.0	4.4
Shelby	209	158	212	180	181	940	10.6	2.9
Simpson	80	63	96	95	94	428	8.2	3.0
Spencer	29	39	45	49	29	191	7.2	2.2
Taylor	155	153	140	134	141	723	9.8	4.9
Todd	47	45	61	60	56	269	7.5	2.7
Trigg	104	86	106	99	74	469	12.3	5.2
Trimble	22	16	16	42	35	131	6.0	3.0
Union	117	165	220	200	140	842	14.6	5.7
Warren	833	787	936	941	923	4,420	16.9	4.0
Washington	33	47	47	57	68	252	7.3	3.3
Wayne	53	43	80	81	60	317	5.7	2.5
Webster	79	51	94	80	88	392	8.2	3.4
Whitley	220	181	201	249	193	1,044	10.1	3.4
Wolfe	36	50	36	28	34	184	8.9	2.2
Woodford	171	228	230	240	212	1,081	14.8	4.1
TOTAL	26,980	27,050	33,160	32,223	30,440	149,853	12.2	4.0

TABLE 23. ALCOHOL CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES) (1988-1992)

POPULATION CATEGORY	COUNTY	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTY	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED ACCIDENT
UNDER 10,000	Carroll	21.2	Carlisle	7.9
	Clinton	17.5	Cumberland	7.7
	Ballard	16.5	Clinton	7.4
	Fulton	15.5	Lee	7.2
	Lee	15.1	Ballard	6.9
	Owsley	14.7	Metcalfe	5.9
	Cumberland	13.4	Fulton	5.1
	Gallatin	12.8	Crittenden	5.0
	Owen	10.5	Robertson	4.6
	Bath	10.5	Livingston	4.3
	Lyon	10.3	Lyon	4.1
	Livingston	10.1	Owen	3.9
	Nicholas	10.1	Hickman	3.8
	Metcalfe	9.7	Carroll	3.8
	Elliott	9.3	Bracken	3.6
	Wolfe	8.9	Nicholas	3.6
	Bracken	8.9	Owsley	3.3
	Carlisle	8.7	Bath	3.0
	Crittenden	8.2	Trimble	3.0
	Spencer	7.2	Hancock	2.9
	Robertson	7.0	Menifee	2.7
	Trimble	6.0	Gallatin	2.5
	Hancock	5.7	Spencer	2.2
	Menifee	5.7	Wolfe	2.2
	Hickman	5.3	Elliott	2.2
	McLean	4.7	McLean	2.1
10,000 - 14,999	Magoffin	15.7	Casey	7.2
	Morgan	14.3	Jackson	7.0
	Martin	14.3	Martin	6.8
	Lawrence	13.4	Leslie	5.8
	Leslie	13.3	Monroe	5.7
	Estill	12.5	Lawrence	5.2
	Trigg	12.3	Trigg	5.2
	Lewis	12.1	Larue	5.0
	Larue	11.7	Garrard	4.8
	Caldwell	11.7	Butler	4.7
	Russell	11.6	Estill	4.7
	Casey	11.4	Russell	4.2
	Henry	10.8	Lewis	4.0
	Rockcastle	10.7	Caldwell	3.9
	Anderson	10.2	Green	3.9
	Jackson	9.9	Magoffin	3.8
	Powell	9.6	Morgan	3.8
	Allen	8.7	Anderson	3.8
	Fleming	8.5	Hart	3.6
	Butler	8.2	Rockcastle	3.5
	Webster	8.2	Powell	3.5
	Garrard	7.9	Webster	3.4
	Hart	7.7	Fleming	3.4
	Todd	7.5	Washington	3.3
	Washington	7.3	Pendleton	3.1
	Monroe	7.3	Edmonson	2.7
	Pendleton	6.9	Todd	2.7
	Edmonson	6.3	Henry	2.6
	Green	3.7	Allen	2.5
15,000 - 24,999	Rowan	26.6	McCreary	6.9
	Clay	21.0	Johnson	6.9
	McCreary	16.8	Rowan	6.1
	Bourbon	15.3	Clay	5.8
	Woodford	14.8	Union	5.7
	Union	14.6	Logan	5.5
	Grant	13.7	Taylor	4.9
	Montgomery	13.3	Scott	4.4
	Logan	13.0	Grant	4.3
	Mason	12.4	Woodford	4.1

TABLE 23. ALCOHOL CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES) (1988-1992) (continued)

POPULATION CATEGORY	COUNTY	ANNUAL AVERAGE ALCOHOL CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTY	ALCOHOL CONVICTIONS PER ALCOHOL-RELATED ACCIDENT
15,000 - 24,999 (cont.)	Johnson	12.2	Montgomery	3.9
	Meade	12.0	Bourbon	3.9
	Scott	12.0	Breckinridge	3.8
	Mercer	11.5	Mercer	3.7
	Carter	10.9	Carter	3.7
	Adair	10.6	Adair	3.7
	Shelby	10.6	Lincoln	3.5
	Breathitt	10.4	Grayson	3.4
	Lincoln	10.0	Meade	3.1
	Taylor	9.8	Simpson	3.0
	Marion	8.7	Knott	2.9
	Grayson	8.4	Ohio	2.9
	Simpson	8.2	Shelby	2.9
	Knott	7.8	Mason	2.6
	Ohio	7.6	Breathitt	2.6
	Harrison	7.2	Wayne	2.5
	Breckinridge	6.5	Harrison	2.4
	Wayne	5.7	Marion	1.8
25,000 - 50,000	Knox	19.6	Knox	6.3
	Perry	18.9	Laurel	5.9
	Floyd	17.9	Greenup	5.7
	Laurel	17.3	Harlan	5.3
	Bell	15.6	Pulaski	5.2
	Harlan	15.2	Calloway	5.2
	Clark	15.2	Perry	5.0
	Franklin	14.1	Hopkins	4.7
	Henderson	13.7	Bell	4.5
	Hopkins	13.0	Letcher	4.4
	Muhlenberg	12.6	Marshall	4.4
	Pulaski	12.2	Floyd	4.2
	Greenup	11.7	Clark	4.1
	Nelson	11.4	Muhlenberg	4.1
	Letcher	10.4	Franklin	3.9
	Calloway	10.3	Jessamine	3.9
	Whitley	10.1	Barren	3.9
	Barren	9.0	Nelson	3.9
	Graves	8.9	Boyle	3.8
	Jessamine	8.9	Henderson	3.6
	Marshall	7.9	Graves	3.5
	Boyle	7.6	Whitley	3.4
	Bullitt	6.5	Bullitt	3.3
	Oldham	6.0	Oldham	3.1
OVER 50,000	Madison	20.0	Hardin	4.9
	McCracken	17.2	Jefferson	4.4
	Warren	16.9	McCracken	4.2
	Fayette	15.3	Madison	4.1
	Daviess	13.6	Fayette	4.0
	Jefferson	12.9	Warren	4.0
	Christian	12.3	Daviess	3.9
	Pike	11.9	Pike	3.5
	Hardin	10.7	Boyd	3.2
	Boone	9.8	Boone	2.7
	Kenton	9.7	Christian	2.6
	Boyd	8.8	Kenton	2.5
	Campbell	7.0	Campbell	2.4

TABLE 24. PERCENTAGE OF DRIVERS CONVICTED OF DUI ARREST
(BY COUNTY)(1988-1992)

COUNTY	TOTAL DUI ARRESTS	TOTAL DUI CONVICTIONS	CONVICTION PERCENTAGE
Adair	849	523	61.6
Allen	561	417	74.3
Anderson	717	545	76.0
Ballard	707	493	69.7
Barren	1,658	1,047	63.1
Bath	450	342	76.0
Bell	2,284	1,365	59.8
Boone	3,472	2,088	60.1
Bourbon	1,087	995	91.5
Boyd	2,317	1,550	66.9
Boyle	846	663	78.4
Bracken	298	228	76.5
Breathitt	1,001	457	45.7
Breckinridge	464	367	79.1
Bullitt	2,011	1,177	58.5
Butler	359	306	85.2
Caldwell	728	534	73.4
Calloway	1,372	1,077	78.5
Campbell	3,281	1,934	58.9
Carlisle	223	166	74.4
Carroll	1,065	676	63.5
Carter	1,261	854	67.7
Casey	698	527	75.5
Christian	3,088	1,970	63.8
Clark	2,370	1,574	66.4
Clay	2,200	1,266	57.5
Clinton	868	540	62.2
Crittenden	304	260	85.5
Cumberland	425	302	71.1
Daviess	5,408	4,077	75.4
Edmonson	359	222	61.8
Elliott	296	183	61.8
Estill	1,010	586	58.0
Fayette	13,599	11,963	88.0
Fleming	260	352	73.9
Floyd	3,537	2,373	67.1
Franklin	3,784	2,161	57.1
Fulton	715	403	56.4
Gallatin	463	245	52.9
Garrard	448	318	71.0
Grant	1,260	804	63.8
Graves	1,390	1,053	75.8
Grayson	777	612	78.8
Green	177	131	74.0
Greenup	2,615	1,483	56.7
Hancock	180	160	88.9
Hardin	4,760	2,879	60.5
Harlan	2,766	1,689	61.1
Harrison	574	403	70.2
Hart	502	395	78.7
Henderson	2,677	2,036	76.1
Henry	640	502	78.4
Hickman	174	102	58.6
Hopkins	2,709	2,073	76.5
Jackson	695	363	52.2
Jefferson	37,394	29,154	78.0
Jessamine	1,056	951	90.1
Johnson	1,112	917	82.5
Kenton	8,274	4,525	54.7
Knott	896	389	43.4
Knox	2,363	1,593	67.4
Larue	617	501	81.2
Laurel	2,901	2,433	83.9
Lawrence	853	576	67.5

TABLE 24. PERCENTAGE OF DRIVERS CONVICTED OF DUI ARREST
(BY COUNTY)(continued)

COUNTY	TOTAL DUI ARRESTS	TOTAL DUI CONVICTIONS	CONVICTION PERCENTAGE
Lee	598	337	56.4
Leslie	747	518	69.3
Letcher	1,575	878	55.7
Lewis	709	509	71.8
Lincoln	885	644	72.8
Livingston	474	339	71.5
Logan	1,654	1,087	65.7
Lyon	260	235	90.4
McCracken	5,310	3,929	74.0
McCreary	1,362	789	57.9
McLean	201	164	81.6
Madison	5,885	3,631	61.7
Magoffin	1,043	603	57.8
Marion	930	463	49.8
Marshall	856	807	94.3
Martin	854	559	65.5
Mason	919	691	75.2
Meade	1,179	766	65.0
Menifee	130	100	76.9
Mercer	944	785	83.2
Metcalfe	444	294	66.2
Monroe	450	284	63.1
Montgomery	1,145	886	77.4
Morgan	629	505	80.3
Muhlenberg	1,756	1,332	75.9
Nelson	1,754	1,195	68.1
Nicholas	336	238	70.8
Ohio	657	542	82.5
Oldham	1,147	714	62.2
Owen	429	301	70.2
Owsley	493	232	47.1
Pendleton	552	280	50.7
Perry	2,993	1,821	60.8
Pike	4,778	2,701	56.5
Powell	593	372	62.7
Pulaski	2,904	2,051	70.6
Robertson	65	51	78.5
Rockcastle	931	516	55.4
Rowan	2,157	1,560	72.3
Russell	965	607	62.9
Scott	1,619	1,001	61.8
Shelby	1,513	940	62.1
Simpson	581	428	73.7
Spencer	381	191	50.1
Taylor	1,090	723	66.3
Todd	431	269	62.4
Trigg	678	469	69.2
Trimble	297	131	44.1
Union	1,061	842	79.4
Warren	7,125	4,420	62.0
Washington	381	252	66.1
Wayne	408	317	77.7
Webster	505	392	77.6
Whitley	1,751	1,044	59.6
Wolfe	339	184	54.3
Woodford	1,446	1,081	74.8
TOTAL	215,720	149,850	69.5

TABLE 25. DUI ARREST CONVICTION RATES BY COUNTY AND POPULATION CATEGORY
(IN DESCENDING ORDER)(1988-1992)

POPULATION CATEGORY	AVERAGE CONVICTION PERCENTAGE	COUNTY	TOTAL ARRESTS	TOTAL CONVICTIONS	CONVICTION PERCENTAGE
UNDER 10,000	65.0	Lyon	260	235	90.4
		Hancock	160	160	68.9
		Crittenden	304	260	85.5
		McLean	201	164	81.6
		Robertson	65	51	78.5
		Menifee	130	100	76.9
		Bracken	298	228	76.5
		Bath	450	342	76.0
		Carlisle	223	166	74.4
		Livingston	474	339	71.5
		Cumberland	425	302	71.1
		Nicholas	336	238	70.8
		Owen	429	301	70.2
		Ballard	707	493	69.7
		Metcalfe	444	294	66.2
		Carroll	1,065	676	63.5
		Clinton	868	540	62.2
		Elliott	296	183	61.6
		Hickman	174	102	58.6
		Fulton	715	403	56.4
		Lee	598	337	56.4
		Wolfe	339	184	54.3
		Gallatin	463	245	52.9
		Spencer	381	191	50.1
		Owsley	493	232	47.1
		Trimble	297	131	44.1
10,000 - 14,999	67.8	Butler	359	306	85.2
		Larue	617	501	81.2
		Morgan	629	505	80.3
		Hart	502	395	78.7
		Henry	640	502	78.4
		Webster	505	392	77.6
		Anderson	717	545	76.0
		Casey	698	527	75.5
		Allen	561	417	74.3
		Green	177	131	74.0
		Fleming	476	352	73.9
		Caldwell	728	534	73.4
		Lewis	709	509	71.8
		Garrard	448	318	71.0
		Leslie	747	518	69.3
		Trigg	678	469	69.2
		Lawrence	653	576	67.5
		Washington	381	252	66.1
		Martin	854	559	65.5
		Monroe	450	284	63.1
		Russell	965	607	62.9
		Powell	593	372	62.7
		Todd	431	269	62.4
		Edmonson	359	222	61.8
		Estill	1,010	586	58.0
		Magoffin	1,043	603	57.8
		Rockcastle	931	516	55.4
		Jackson	695	363	52.2
		Pendleton	552	280	50.7
15,000 - 24,999	68.1	Bourbon	1,067	995	91.5
		Mercer	944	785	83.2
		Ohio	657	542	82.5
		Johnson	1,112	917	82.5
		Union	1,061	842	79.4
		Breckinridge	464	367	79.1
		Grayson	777	612	78.8
		Wayne	408	317	77.7
		Montgomery	1,145	886	77.4
		Mason	919	691	75.2

TABLE 25. DUI ARREST CONVICTION RATES BY COUNTY AND POPULATION CATEGORY (IN DESCENDING ORDER)(1988-1992)(continued)

POPULATION CATEGORY	AVERAGE CONVICTION PERCENTAGE	COUNTY	TOTAL ARRESTS	TOTAL CONVICTIONS	CONVICTION PERCENTAGE
15,000 - 24,999 (cont.)	68.1	Woodford	1,446	1,081	74.8
		Simpson	581	428	73.7
		Lincoln	885	644	72.8
		Rowan	2,157	1,560	72.3
		Harrison	574	403	70.2
		Carter	1,261	854	67.7
		Taylor	1,090	723	66.3
		Logan	1,654	1,087	65.7
		Meade	1,179	766	65.0
		Grant	1,260	804	63.8
		Shelby	1,513	940	62.1
		Scott	1,619	1,001	61.8
		Adair	849	523	61.6
		McCreary	1,362	789	57.9
		Clay	2,200	1,266	57.5
		Marion	930	463	49.8
		Breathitt	1,001	457	45.7
		Knott	896	389	43.4
25,000 - 50,000	67.7	Marshall	856	807	94.3
		Jessamine	1,056	951	90.1
		Laurel	2,901	2,433	83.9
		Calloway	1,372	1,077	78.5
		Boyle	846	663	78.4
		Hopkins	2,709	2,073	76.5
		Henderson	2,677	2,036	76.1
		Muhlenberg	1,756	1,332	75.9
		Graves	1,390	1,053	75.8
		Pulaski	2,904	2,051	70.6
		Nelson	1,754	1,195	68.1
		Knox	2,363	1,593	67.4
		Floyd	3,537	2,373	67.1
		Clark	2,370	1,574	66.4
		Barren	1,658	1,047	63.1
		Oldham	1,147	714	62.2
		Harlan	2,766	1,689	61.1
		Perry	2,993	1,821	60.8
		Bell	2,284	1,365	59.8
		Whitley	1,751	1,044	59.6
		Bullitt	2,011	1,177	58.5
		Franklin	3,784	2,161	57.1
		Greenup	2,615	1,483	56.7
		Letcher	1,575	878	55.7
OVER 50,000	71.5	Fayette	13,599	11,963	88.0
		Jefferson	37,394	29,154	78.0
		Daviess	5,408	4,077	75.4
		McCracken	5,310	3,929	74.0
		Boyd	2,317	1,550	66.9
		Christian	3,088	1,970	63.8
		Warren	7,125	4,420	62.0
		Madison	5,885	3,631	61.7
		Hardin	4,760	2,879	60.5
		Boone	3,472	2,088	60.1
		Campbell	3,281	1,934	58.9
		Pike	4,778	2,701	56.5
		Kenton	8,274	4,525	54.7

TABLE 26. SUMMARY OF RECKLESS DRIVING CONVICTIONS BY COUNTY (1988-1992 DATA)

COUNTY	RECKLESS DRIVING CONVICTIONS PER CALENDAR YEAR 1988	1989	1990	1991	1992	TOTAL CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE PER 1,000 LICENSED DRIVERS
Adair	43	46	43	46	28	206	4.19
Allen	26	24	26	30	23	129	2.70
Anderson	26	35	18	17	26	122	2.28
Ballard	7	9	20	17	9	62	2.06
Barren	60	90	81	80	97	408	3.50
Bath	5	14	17	6	7	49	1.50
Bell	15	19	12	25	27	98	1.12
Boone	328	262	261	228	164	1,243	5.81
Bourbon	44	40	76	44	48	252	3.87
Boyd	65	89	86	69	42	351	1.99
Boyle	17	21	39	39	35	151	1.73
Bracken	18	11	15	19	23	86	3.34
Breathitt	15	18	29	36	31	129	2.95
Breckinridge	5	15	18	19	23	80	1.43
Bullitt	79	74	80	67	82	382	2.12
Butler	17	10	8	7	16	58	1.56
Caldwell	30	15	35	48	27	155	3.41
Calloway	45	33	61	54	20	213	2.04
Campbell	193	190	197	132	96	808	2.94
Carlisle	3	11	10	6	9	39	2.05
Carroll	16	17	24	11	7	75	2.36
Carter	24	14	33	39	29	139	1.77
Casey	17	13	30	53	28	141	3.05
Christian	136	112	120	108	86	562	3.51
Clark	42	15	19	17	24	117	1.13
Clay	73	56	58	58	17	262	4.34
Clinton	33	25	41	33	13	145	4.69
Crittenden	9	9	14	19	9	60	1.90
Cumberland	17	17	31	15	11	91	4.04
Daviess	99	99	114	91	102	505	1.68
Edmonson	8	17	14	18	24	81	2.30
Elliott	17	7	19	3	7	53	2.69
Estill	18	16	18	7	12	71	1.52
Fayette	480	525	589	510	603	2,707	3.45
Fleming	23	21	33	35	21	133	3.22
Floyd	76	130	106	61	18	391	2.95
Franklin	108	154	167	94	54	577	3.77
Fulton	4	8	6	6	14	38	1.47
Gallatin	14	14	21	31	24	104	5.41
Garrard	34	25	13	15	26	113	2.81
Grant	24	19	20	31	17	111	1.89
Graves	52	67	58	61	40	278	2.34
Grayson	40	29	30	45	37	181	2.48
Green	21	16	23	12	14	86	2.40
Greenup	58	83	69	49	49	308	2.43
Hancock	3	4	1	0	3	11	0.39
Hardin	224	171	163	195	171	924	3.43
Harlan	161	162	150	113	48	634	5.71
Harrison	28	34	29	30	42	163	2.90
Hart	11	19	10	15	16	71	1.38
Henderson	77	52	56	61	44	290	1.95
Henry	7	11	4	10	7	39	0.84
Hickman	5	5	5	12	1	28	1.45
Hopkins	113	99	147	151	62	572	3.60
Jackson	7	6	13	26	20	72	1.96
Jefferson	1,758	1,899	2,069	1,665	1,543	8,934	3.96
Jessamine	44	31	47	33	34	189	1.77
Johnson	43	24	51	54	69	241	3.20
Kenton	441	473	427	408	380	2,129	4.58
Knott	43	14	27	1	2	87	1.74
Knox	60	59	100	93	73	385	4.75
Larue	23	22	24	20	34	123	2.86
Laurel	87	79	78	50	54	348	2.47
Lawrence	26	33	24	28	14	125	2.90
Lee	25	20	28	53	21	147	6.59
Leslie	17	28	23	34	22	124	3.18
Letcher	29	29	44	25	19	146	1.73
Lewis	14	16	26	23	35	114	2.72
Lincoln	46	36	38	33	46	201	3.12

TABLE 26. SUMMARY OF RECKLESS DRIVING CONVICTIONS BY COUNTY (1986-1990 DATA)(continued)

COUNTY	RECKLESS DRIVING CONVICTIONS PER CALENDAR YEAR 1988	1989	1990	1991	1992	TOTAL CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE PER 1,000 LICENSED DRIVERS
Livingston	17	14	22	31	28	112	3.34
Logan	49	50	93	80	53	325	3.89
Lyon	1	5	13	8	9	36	1.57
McCracken	157	164	144	168	77	710	3.11
McCreary	39	25	44	34	37	179	3.81
McLean	15	11	14	17	7	64	1.83
Madison	81	91	73	67	56	368	2.03
Magoffin	44	11	19	16	45	135	3.52
Marion	110	81	78	104	53	426	7.96
Marshall	23	30	24	15	19	111	1.09
Martin	40	22	32	23	22	139	3.55
Mason	30	26	45	25	30	156	2.81
Meade	34	44	71	44	47	240	3.76
Menifee	1	7	6	5	3	22	1.26
Mercer	31	30	59	33	36	189	2.76
Metcalfe	32	15	22	18	18	105	3.47
Monroe	36	27	41	42	24	170	4.38
Montgomery	34	29	27	19	36	145	2.18
Morgan	10	7	15	17	8	57	1.62
Muhlenberg	42	53	67	72	59	293	2.77
Nelson	104	64	64	57	36	325	3.10
Nicholas	21	24	20	15	9	89	3.78
Ohio	36	37	26	25	20	144	2.01
Oldham	25	16	10	21	8	80	0.67
Owen	13	7	9	15	12	56	1.95
Owsley	6	3	6	2	4	21	1.33
Pendleton	18	39	24	44	43	168	4.15
Perry	112	98	91	158	89	548	5.70
Pike	212	173	259	265	140	1,049	4.60
Powell	9	9	9	12	4	43	1.11
Pulaski	61	100	186	130	89	566	3.37
Robertson	5	10	6	2	4	27	3.73
Rockcastle	28	31	27	30	11	127	2.64
Rowan	84	62	49	38	37	270	4.61
Russell	32	37	31	44	32	176	3.37
Scott	72	76	73	68	45	334	4.00
Shelby	41	39	35	26	23	164	1.84
Simpson	23	12	14	11	13	73	1.40
Spencer	14	16	12	7	7	56	2.12
Taylor	101	121	103	98	65	488	6.58
Todd	20	20	17	15	12	84	2.35
Trigg	15	22	20	13	8	78	2.05
Trimble	4	4	1	3	0	12	0.55
Union	33	19	41	27	22	142	2.45
Warren	230	227	226	294	224	1,201	4.58
Washington	20	27	18	27	23	115	3.32
Wayne	22	27	26	38	25	138	2.47
Webster	21	8	29	16	18	92	1.92
Whitley	51	38	41	47	37	214	2.06
Wolfe	8	6	11	7	12	44	2.12
Woodford	58	71	71	74	53	327	4.47
TOTAL	8,101	8,047	8,850	8,011	6,671	39,680	2.85

TABLE 27. PERCENTAGE OF ACCIDENTS INVOLVING DRUGS BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1988-1992 DATA)(ALL ROADS)

COUNTY	NUMBER OF ACCIDENTS	PERCENT OF TOTAL ACCIDENTS
POPULATION CATEGORY UNDER 10,000		
Owsley	7	1.3
Elliott	4	0.7
Hickman	3	0.7
Spencer	4	0.6
Carlisle	2	0.6
Fulton	10	0.6
Owen	7	0.6
Crittenden	5	0.4
Lee	3	0.4
Ballard	3	0.3
Carroll	6	0.3
Livingston	3	0.3
Wolfe	3	0.3
Nicholas	2	0.3
Lyon	2	0.3
Metcalfe	2	0.2
Bath	3	0.2
Trimble	2	0.2
Cumberland	1	0.1
Bracken	1	0.1
Clinton	1	0.1
Gallatin	1	0.1
Hancock	0	0.0
Menifee	0	0.0
McLean	0	0.0
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Leslie	10	1.3
Magoffin	11	0.8
Allen	17	0.7
Martin	10	0.6
Jackson	6	0.6
Edmonson	7	0.5
Morgan	7	0.5
Hart	8	0.4
Trigg	7	0.4
Powell	6	0.4
Russell	8	0.4
Casey	3	0.3
Estill	5	0.3
Henry	8	0.3
Garrard	2	0.2
Fleming	4	0.2
Pendleton	4	0.2
Caldwell	5	0.2
Anderson	5	0.2
Rockcastle	5	0.2
Webster	4	0.2
Butler	3	0.2
Larue	2	0.1
Monroe	1	0.1
Todd	1	0.1
Green	1	0.1
Lawrence	2	0.1
Lewis	1	0.1
Washington	0	0.0
POPULATION CATEGORY 15,000-24,999		
Clay	66	2.6
Mercer	22	0.6
Johnson	18	0.6
Rowan	22	0.5
Adair	12	0.5
Breathitt	11	0.5
Meade	8	0.3
Shelby	17	0.3
Harrison	10	0.3
Union	8	0.3
Taylor	12	0.3
Scott	12	0.2
Logan	7	0.2
Lincoln	5	0.2
Woodford	9	0.2
Knott	3	0.2
Wayne	4	0.2
Montgomery	7	0.2
Grant	7	0.2
Bourbon	6	0.1
Mason	7	0.1
Marion	2	0.1
Grayson	5	0.1
Breckinridge	1	0.1
Ohio	4	0.1
McCreary	1	0.1
Carter	4	0.1
Simpson	4	0.1
POPULATION CATEGORY 25,000-50,000		
Knox	36	0.9
Bell	35	0.7
Laurel	40	0.6
Letcher	14	0.5
Whitley	23	0.4
Clark	23	0.4
Floyd	27	0.4
Harlan	21	0.4
Greenup	16	0.3
Pulaski	24	0.3
Graves	15	0.3
Perry	17	0.3
Oldham	14	0.3
Muhlenberg	17	0.3
Barren	13	0.2
Calloway	9	0.2
Franklin	17	0.2
Bullitt	12	0.2
Hopkins	19	0.2
Henderson	13	0.1
Nelson	6	0.1
Marshall	4	0.1
Jessamine	6	0.1
Boyle	8	0.1
POPULATION CATEGORY OVER 50,000		
Pike	61	0.5
McCracken	65	0.4
Warren	57	0.3
Kenton	106	0.3
Daviess	71	0.3
Campbell	42	0.3
Fayette	139	0.2
Boyd	30	0.2
Christian	24	0.2
Boone	36	0.2
Madison	27	0.2
Hardin	15	0.1
Jefferson	188	0.1

TABLE 28. PERCENTAGE OF ACCIDENTS INVOLVING DRUGS BY CITY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES)

CITY	NUMBER OF DRUG-RELATED ACCIDENTS (1988-1992)	PERCENTAGE OF ACCIDENTS INVOLVING DRUGS
POPULATION CATEGORY OVER 200,000		
Lexington	560	0.9
Louisville	63	0.1
POPULATION CATEGORY 20,000-55,000		
Richmond	511	6.6
Covington	511	3.6
Henderson	179	2.1
Owensboro	185	1.2
Hopkinsville	69	0.9
Frankfort	41	0.6
Paducah	44	0.4
Bowling Green	27	0.2
Ashland	11	0.1
Jeffersontown	1	0.0
POPULATION CATEGORY 10,000-19,999		
Georgetown	209	6.8
Radcliff	205	5.2
Winchester	106	2.8
Middlesboro	62	2.3
Danville	84	2.1
Glasgow	66	1.7
Elizabethtown	87	1.2
Newport	46	0.9
Fort Thomas	5	0.3
Erlanger	6	0.2
Independence	3	0.2
Shively	4	0.1
Florence	10	0.1
Madisonville	6	0.1
Somerset	7	0.1
Murray	3	0.1
Nicholasville	1	0.0
Saint Matthews	0	0.0
POPULATION CATEGORY 5,000-9,999		
Edgewood	121	10.8
Williamsburg	48	4.0
Princeton	42	3.0
Versailles	39	1.8
Maysville	60	1.7
Mayfield	36	1.1
Elsmere	10	1.1
Taylor Mill	8	1.0
Paris	19	0.8
Corbin	22	0.8
Villa Hills	3	0.8
Morehead	19	0.7
Fort Wright	9	0.5
Lawrenceburg	4	0.3
Campbellsville	9	0.3
Mount Washington	2	0.3
London	9	0.3
Bellevue	2	0.2
Harrodsburg	5	0.2
Flatwoods	2	0.2
Cynthiana	4	0.2
Franklin	2	0.1
Fort Mitchell	2	0.1
Pikeville	3	0.1
Berea	2	0.1
Bardstown	2	0.1
Monticello	1	0.1
Lebanon	2	0.1
Alexandria	1	0.1
Mount Sterling	2	0.1
Hazard	3	0.1
Russellville	1	0.0
Shelbyville	1	0.0
Dayton	0	0.0
Lyndon	0	0.0
Middletown	0	0.0
POPULATION CATEGORY 2,500-4,999		
Wilmore	20	8.4
Vine Grove	20	4.8
Hodgenville	35	4.6
Tompkinsville	34	4.4
Providence	20	3.1
Highland Heights	27	2.0
Irvine	13	1.6
Cumberland	9	1.6
Hickman	5	1.6
Park Hills	4	1.1
Paintsville	18	1.0
Grayson	11	1.0
Fulton	7	0.8
Columbia	12	0.8
Cold Spring	11	0.8
Lakeside Park	3	0.8
Beaver Dam	5	0.6
Calvert City	2	0.6
Barbourville	5	0.5
Prestonsburg	9	0.5
Lancaster	3	0.4
Marion	3	0.4
Williamstown	3	0.4
Leitchfield	7	0.4
Greenville	4	0.4
Jenkins	1	0.3
Scottsville	4	0.3
Russell	3	0.2
Carrollton	1	0.1
Lagrange	1	0.1
Central City	2	0.1
Harlan	1	0.1
Benton	0	0.0
Flemingsburg	0	0.0
Dawson Springs	0	0.0
Springfield	0	0.0
Morganfield	0	0.0
Stanton	0	0.0
Southgate	0	0.0
Ludlow	0	0.0
Shepherdsville	0	0.0
Stanford	0	0.0
Hartford	0	0.0
Mount Vernon	0	0.0
Crestview Hills	0	0.0
Oak Grove	0	0.0
Graymoor	0	0.0

TABLE 29. SAFETY BELT USAGE (DRIVERS OF PASSENGER CARS INVOLVED IN ACCIDENTS BY COUNTY AND POPULATION CATEGORY) (IN DESCENDING ORDER)(1988-1992)

COUNTY	PERCENT SEAT BELT USAGE	
POPULATION CATEGORY UNDER 10,000		
Trimble	49.2	
Lyon	43.6	
Gallatin	38.1	
Ballard	37.6	
Owen	35.7	
Carroll	34.8	*
Hancock	34.8	
Hickman	33.1	
Spencer	32.3	
McLean	30.5	
Wolfe	28.3	
Robertson	27.8	
Nicholas	26.7	
Carlisle	24.0	
Livingston	23.7	
Bath	23.5	
Lee	22.4	
Bracken	22.1	
Fulton	20.7	
Menifee	20.5	
Elliott	19.0	
Metcalfe	18.4	
Cumberland	17.4	
Crittenden	13.8	
Clinton	12.2	
Owsley	8.9	*
POPULATION CATEGORY 10,000-14,999		
Hart	39.9	
Washington	38.3	
Rockcastle	35.6	
Henry	34.7	
Trigg	33.9	
Anderson	32.7	*
Pendleton	32.6	
Edmonson	31.9	
Magoffin	30.9	
Powell	29.1	
Todd	28.9	
Webster	28.8	
Garrard	28.4	
Russell	25.9	
Lawrence	25.6	
Martin	24.9	
Morgan	24.8	
Caldwell	24.7	
Leslie	23.4	
Larue	22.3	*
Fleming	21.7	
Butler	20.9	
Allen	20.4	*
Casey	18.9	
Jackson	18.0	
Estill	17.4	
Lewis	16.5	*
Green	12.5	
Monroe	10.8	
POPULATION CATEGORY 15,000-24,999		
Scott	50.8	
Woodford	46.3	
Grant	43.9	
Meade	43.9	
Shelby	42.0	
Simpson	39.4	
Bourbon	34.6	*
Rowan	31.8	
Mason	31.3	
Knott	31.3	
Johnson	30.8	
Mercer	29.6	
Grayson	28.2	
Ohio	28.0	
Logan	27.6	
Breckinridge	26.6	
Harrison	26.0	
Lincoln	25.4	
McCreary	25.2	
Marion	23.4	
Union	22.1	
Breathitt	20.7	
Montgomery	20.5	
Carter	19.3	
Adair	18.8	
Clay	18.0	
Wayne	15.5	*
Taylor	15.4	*
POPULATION CATEGORY 25,000-50,000		
Oldham	53.5	
Jessamine	47.5	
Franklin	42.6	
Bullitt	40.7	
Nelson	38.8	
Boyle	35.7	
Greenup	35.5	
Henderson	35.3	
Pulaski	35.0	
Whitley	33.9	
Floyd	33.7	
Hopkins	32.8	*
Clark	32.3	
Laurel	31.1	
Marshall	31.0	
Bell	30.8	
Letcher	30.3	
Barren	28.5	
Harlan	28.0	
Graves	26.2	*
Perry	26.2	*
Knox	24.1	*
Calloway	24.0	
Muhlenberg	22.8	
POPULATION CATEGORY OVER 50,000		
Fayette	72.0	
Jefferson	62.3	
Hardin	53.6	
Warren	53.4	
Boone	52.7	
Kenton	50.2	
Campbell	49.3	
Madison	41.2	
Christian	39.0	
McCracken	38.7	
Boyd	38.4	*
Daviess	35.6	*
Pike	32.5	*

* Counties with potential for intensive promotional campaigns. Selected based on safety belt usage, accident rate, and location in state.

TABLE 30. CHANGE IN SAFETY BELT USAGE FOR 1988-1992 (PASSENGER CAR DRIVERS INVOLVED IN ACCIDENTS) BY POPULATION CATEGORY

	PERCENT USAGE					
	POPULATION CATEGORY					
YEAR	UNDER 10,000-	10,000- 14,999-	15,000- 24,999-	25,000- 50,000-	OVER 50,000-	ALL
1988	19.8	19.7	20.3	24.1	41.1	33.2
1989	23.3	22.4	24.8	28.9	46.6	37.9
1990	26.3	25.3	30.7	34.5	54.5	44.6
1991	31.6	31.6	36.2	40.7	66.3	54.3
1992	36.8	34.6	41.2	46.0	75.0	60.9
All	28.2	27.2	31.4	35.4	56.8	46.2

TABLE 31. ACCIDENT SEVERITY VERSUS SAFETY BELT USAGE (ALL DRIVERS)*

	NOT WEARING SAFETY BELT		WEARING SAFETY BELT		
TYPE OF INJURY	NUMBER	PERCENT	NUMBER	PERCENT	PERCENT REDUCTION
Fatal	2,027	0.34	317	0.06	82 **
Incapacitating	20,955	3.50	8,702	1.69	52 **
Non-Incapacitating	35,869	5.99	19,394	3.78	37 **
Possible Injury	39,348	6.57	29,258	5.70	13 **
Fatal or Incapacitating	22,982	3.84	9,019	1.76	54 **

* Based on 1988 through 1992 accident data. Total sample size for not wearing a safety belt was 599,102 compared to 513,493 for wearing a safety belt

** Statistically significant reduction (probability of 0.99).

TABLE 32. CHANGE IN SEVERITY OF INJURIES BY YEAR (1988-1992 DATA)

Type of Injury	PERCENTAGE DRIVERS SUSTAINING A GIVEN INJURY				
	1988	1989	1990	1991	1992
			NOT WEARING SAFETY BELT		
Fatal	0.27	0.28	0.34	0.44	0.44
Incapacitating	3.21	3.37	3.44	3.81	3.96
Non-Incapacitating	5.52	5.62	6.01	6.53	6.80
Possible Injury	5.81	6.07	6.75	7.28	7.70
			WEARING SAFETY BELT		
Fatal	0.07	0.06	0.07	0.05	0.06
Incapacitating	1.68	1.69	1.68	1.76	1.67
Non-Incapacitating	3.68	3.74	3.85	3.75	3.82
Possible Injury	5.30	5.43	5.58	5.79	6.09

TABLE 33. POTENTIAL REDUCTION IN TRAFFIC ACCIDENT FATALITIES AND ACCIDENT SAVINGS FROM INCREASE IN DRIVER SAFETY BELT USAGE*

DRIVER USAGE RATE (PERCENT)	POTENTIAL ANNUAL REDUCTION IN NUMBER OF		ANNUAL ACCIDENT SAVINGS (MILLION $) FROM REDUCTION IN		
	FATALITIES	SERIOUS INJURIES**	FATALITIES	SERIOUS INJURIES	TOTAL
50	52	353	78.0	13.8	91.8
60	110	745	165.0	29.1	194.1
70	168	1,137	252.0	44.3	296.3
80	226	1,529	339.0	59.6	398.6
90	284	1,921	426.0	74.9	500.9
100	342	2,313	513.0	90.2	603.2

* Based on increase from the 41.0 usage rate determined in the 1992 survey, the precent reductions in Table 31, and accident cost estimates recommended by the Federal Highway Administration (24). These costs are $1,500,000 for a fatality and $39,000 for an incapacitating injury.

** Serious injuries were defined as those listed as incapacitating on the accident report.

TABLE 34. USAGE AND EFFECTIVENESS OF CHILD SAFETY SEATS (1988-1992 ACCIDENT) DATA FOR CHILDREN (AGE THREE AND UNDER)

VARIABLE	CATAGORY	RESTRAINT USED NONE	SAFETY BELT OR OTHER	CHILD SAFETY SEAT	ANY RESTRAINT
Number With Given Injury	Fatal	19	5	16	21
	Incapacitating	482	141	138	279
	Non-Incapacitating	1,172	415	582	997
	Possible Injury	1,645	832	947	1,779
	None Detected	17,398	14,145	19,266	33,411
Percent With Given Injury	Fatal	0.09	0.03	0.08	0.06
	Incapacitating	2.33	0.91	0.66	0.76
	Non-Incapacitating	5.66	2.67	2.78	2.73
	Possible Injury	7.94	5.35	4.52	4.88
	None Detected	83.98	91.03	91.97	91.57
Percent Usage By Seat Position	Middle Front	38.9	19.1	19.9	39.0
	Right Front	33.2	27.6	19.9	47.5
	Left Rear	18.3	22.3	42.6	64.9
	Middle Rear	22.1	16.0	43.9	60.0
	Right Rear	16.7	21.4	46.4	67.8
	All Positions	27.3	23.0	31.2	54.2
Percent With Given Injury By Seat Position (Middle Front)	Fatal	0.06	0.05	0.04	0.05
	Incapacitating	2.34	1.41	0.71	1.04
	Non-Incapacitating	5.87	3.83	3.01	3.40
	Possible Injury	8.50	5.82	5.45	5.62
	None Detected	83.23	88.90	90.79	89.89
(Right Front)	Fatal	0.09	0.04	0.12	0.07
	Incapacitating	2.61	1.09	0.65	0.91
	Non-Incapacitating	6.04	3.31	3.18	3.26
	Possible Injury	8.73	6.33	5.32	5.91
	None Detected	82.54	89.23	90.74	89.86
(Left Rear)	Fatal	0.05	0.00	0.02	0.01
	Incapacitating	2.21	0.59	0.47	0.51
	Non-Incapacitating	4.52	1.52	2.49	2.15
	Possible Injury	7.01	4.15	4.39	4.31
	None Detected	86.22	93.73	92.63	93.01
(Middle Rear)	Fatal	0.17	0.00	0.13	0.09
	Incapacitating	1.89	0.59	0.69	0.66
	Non-Incapacitating	5.44	0.00	2.05	1.49
	Possible Injury	6.50	4.37	3.37	3.64
	None Detected	86.00	95.05	93.77	94.12
(Right Rear)	Fatal	0.12	0.04	0.07	0.06
	Incapacitating	1.62	0.47	0.77	0.67
	Non-Incapacitating	4.90	2.29	2.96	2.74
	Possible Injury	5.60	3.97	4.20	4.13
	None Detected	87.76	93.23	92.00	92.40
YEAR	1988	5,071	2,398	3,089	5,487
	1989	4,849	2,944	3,873	6,817
	1990	4,427	3,256	4,293	7,549
	1991	3,234	3,263	4,463	7,726
	1992	3,135	3,677	5,231	8,908

TABLE 35. PERCENTAGE OF ACCIDENTS INVOLVING UNSAFE SPEED BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1988-1992 DATA)

COUNTY	NUMBER OF ACCIDENTS	PERCENT OF TOTAL ACCIDENTS
POPULATION CATEGORY UNDER 10,000		
Gallatin	230	21.6
Robertson	16	18.2
Lyon	133	16.6
Elliott	85	15.9
Owsley	84	15.8
Carlisle	50	15.4
Spencer	110	15.2
Menifee	65	14.3
Owen	173	14.1
Bath	239	14.0
Wolfe	149	13.4
Carroll	284	12.9
Trimble	104	12.9
Hickman	55	12.5
Ballard	129	12.2
McLean	131	12.2
Nicholas	65	10.2
Metcalfe	108	10.0
Hancock	88	9.7
Lee	60	8.2
Bracken	80	8.1
Livingston	73	7.0
Cumberland	33	4.9
Crittenden	60	4.8
Fulton	70	4.4
Clinton	43	3.5
POPULATION CATEGORY 10,000-14,999		
Leslie	178	23.4
Henry	449	18.9
Edmonson	234	18.4
Magoffin	246	17.6
Martin	264	15.7
Casey	149	14.5
Garrard	186	14.3
Todd	183	14.2
Rockcastle	333	13.9
Jackson	123	13.3
Morgan	188	12.9
Lewis	207	12.4
Powell	186	11.3
Allen	263	10.1
Anderson	235	9.6
Russell	206	9.5
Larue	159	9.0
Estill	165	8.9
Fleming	152	8.7
Washington	117	8.3
Trigg	142	8.0
Lawrence	115	7.6
Caldwell	161	7.3
Butler	121	7.1
Monroe	72	7.0
Pendleton	109	6.5
Webster	121	5.6
Hart	119	5.6
Green	45	3.2
POPULATION CATEGORY 15,000-24,999		
McCreary	220	19.6
Grant	577	15.3
Clay	366	14.5
Carter	467	13.2
Breathitt	259	12.1
Woodford	502	12.0
Rowan	553	11.6
Knott	191	11.4
Lincoln	282	11.4
Shelby	639	11.3
Bourbon	462	11.3
Meade	289	10.6
Ohio	322	10.6
Union	269	10.6
Mercer	364	10.1
Wayne	215	9.3
Marion	251	9.2
Johnson	262	8.4
Harrison	226	7.2
Scott	420	7.1
Grayson	222	6.4
Breckinridge	105	6.3
Adair	163	6.3
Logan	227	5.7
Taylor	187	5.0
Montgomery	187	4.7
Mason	227	4.6
Simpson	128	4.3
POPULATION CATEGORY 25,000-50,000		
Floyd	1137	16.3
Knox	546	14.2
Whitley	715	14.0
Harlan	635	13.2
Letcher	378	12.3
Muhlenberg	613	11.1
Laurel	755	10.7
Clark	608	10.1
Franklin	961	9.7
Hopkins	931	8.6
Bell	401	8.4
Greenup	409	8.3
Jessamine	457	8.2
Bullitt	507	8.0
Calloway	297	8.0
Perry	452	7.8
Oldham	360	7.7
Nelson	410	7.5
Marshall	291	7.5
Graves	428	7.3
Pulaski	637	7.1
Boyle	349	6.3
Henderson	648	5.7
Barren	269	4.0
POPULATION CATEGORY OVER 50,000		
Pike	2097	16.5
Madison	1472	10.6
Christian	1063	9.4
Boone	1360	8.1
Warren	1562	7.0
Kenton	1849	5.9
Hardin	920	5.8
Campbell	931	5.7
Boyd	689	5.6
Daviess	1057	5.2
McCracken	772	4.7
Jefferson	6587	4.2
Fayette	2443	3.9

TABLE 36. PERCENTAGE OF ACCIDENTS INVOLVING UNSAFE SPEED BY CITY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES)(1988-1992 DATA)

CITY	NUMBER OF ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Lexington	2386	3.8
Louisville	2403	2.9
POPULATION CATEGORY 20,000-55,000		
Hopkinsville	473	6.1
Frankfort	360	5.2
Richmond	370	4.8
Jeffersontown	214	4.7
Covington	664	4.7
Bowling Green	685	4.0
Henderson	327	3.8
Ashland	293	3.6
Paducah	414	3.5
Owensboro	417	2.7
POPULATION CATEGORY 10,000-19,999		
Fort Thomas	119	7.5
Independence	97	5.7
Newport	271	5.2
Florence	468	5.0
Murray	110	5.0
Georgetown	151	4.9
Shively	239	4.6
Madisonville	288	4.5
Erlanger	175	4.5
Middlesboro	114	4.3
Somerset	189	4.0
Danville	136	3.4
Elizabethtown	234	3.2
Nicholasville	83	3.0
Winchester	111	2.9
Glasgow	89	2.2
Saint Matthews	116	2.0
Radcliff	78	2.0
POPULATION CATEGORY 5,000-9,999		
Taylor Mill	100	11.9
Villa Hills	34	9.3
Fort Wright	127	6.7
Elsmere	60	6.5
Williamsburg	76	6.3
Pikeville	134	5.8
Monticello	95	5.6
London	161	5.2
Lawrenceburg	60	5.1
Corbin	149	5.1
Lebanon	79	4.9
Princeton	62	4.5
Fort Mitchell	62	4.4
Versailles	91	4.3
Bellevue	56	4.3
Alexandria	43	3.8
Paris	88	3.8
Morehead	102	3.8
Berea	68	3.7
Mount Washington	28	3.6
Dayton	27	3.5
Cynthiana	58	3.5
Harrodsburg	76	3.5
Flatwoods	31	3.3
Russellville	70	3.1
Edgewood	35	3.1
Campbellsville	88	3.1
Bardstown	78	2.8
Mount Sterling	57	2.8
Shelbyville	66	2.7
Maysville	84	2.4
Franklin	36	2.0
Mayfield	57	1.8
Hazard	42	1.7
POPULATION CATEGORY 2,500-4,999		
Lakeside Park	46	11.7
Vine Grove	38	9.2
Hartford	18	8.9
Cumberland	48	8.5
Park Hills	27	7.5
Williamstown	53	7.4
Southgate	35	6.4
Jenkins	22	6.3
Dawson Springs	30	6.2
Scottsville	82	5.6
Barbourville	53	5.6
Greenville	54	5.1
Lancaster	35	5.0
Highland Heights	63	4.7
Wilmore	11	4.6
Calvert City	16	4.6
Carrollton	41	4.5
Fulton	41	4.4
Providence	29	4.4
Shepherdsville	82	4.4
Morganfield	32	4.0
Springfield	28	3.9
Columbia	58	3.8
Flemingsburg	25	3.7
Prestonsburg	72	3.7
Russell	56	3.6
Hickman	10	3.2
Leitchfield	54	3.1
Tompkinsville	23	2.9
Mount Vernon	24	2.9
Central City	40	2.8
Hodgenville	20	2.6
Grayson	29	2.6
Benton	28	2.5
Stanford	20	2.5
Cold Spring	33	2.4
Paintsville	41	2.3
Lagrange	26	2.3
Irvine	18	2.3
Ludlow	11	2.1
Beaver Dam	15	1.9
Marion	14	1.8
Stanton	11	1.8
Harlan	21	1.6

TABLE 37. SUMMARY OF SPEEDING CONVICTIONS BY COUNTY (1988-1992 DATA)

COUNTY	SPEEDING CONVICTIONS PER CALENDAR YEAR					TOTAL SPEEDING CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	SPEEDING CONVICTIONS PER SPEED-RELATED ACCIDENT
	1988	1989	1990	1991	1992			
Adair	353	262	280	303	320	1,518	31.5	9.3
Allen	158	97	96	126	129	606	12.9	2.3
Anderson	772	707	670	429	716	3,294	64.7	14.0
Ballard	76	59	219	276	165	795	26.3	6.2
Barren	999	933	900	1,027	1,053	4,912	42.8	18.3
Bath	132	98	114	108	62	514	16.1	2.2
Bell	394	235	190	139	196	1,154	13.1	2.9
Boone	2,886	2,598	3,356	2,086	1,727	12,653	63.0	9.3
Bourbon	820	1,174	941	855	652	4,442	68.9	9.6
Boyd	1,738	1,836	968	1,434	1,545	7,521	42.4	10.9
Boyle	497	344	392	692	569	2,494	28.9	7.1
Bracken	94	104	155	247	331	931	36.9	11.6
Breathitt	72	81	70	53	65	341	7.9	1.3
Breckinridge	202	191	166	131	140	830	15.1	7.9
Bullitt	1,150	853	664	863	601	4,131	24.4	8.1
Butler	101	162	145	83	98	589	16.1	4.9
Caldwell	349	432	498	441	230	1,950	42.8	12.1
Calloway	523	448	519	818	449	2,757	27.3	9.3
Campbell	2,229	2,241	2,454	2,628	2,287	11,839	43.7	12.7
Carlisle	62	104	135	141	179	621	32.3	12.4
Carroll	288	300	528	598	540	2,254	71.3	7.9
Carter	111	158	168	160	303	900	11.7	1.9
Casey	179	114	51	74	128	546	12.0	3.7
Christian	1,725	1,865	1,964	1,057	1,026	7,637	47.9	7.2
Clark	885	621	687	937	1,061	4,191	41.1	6.9
Clay	121	50	91	101	60	423	7.1	1.2
Clinton	52	39	83	63	77	314	10.3	7.3
Crittenden	148	61	96	148	126	579	18.5	9.7
Cumberland	135	96	142	92	109	574	25.7	17.4
Daviess	1,710	1,779	1,709	1,656	1,930	8,784	29.4	8.3
Edmonson	81	43	69	82	61	336	9.7	1.4
Elliott	5	7	8	1	2	23	1.2	0.3
Estill	98	128	80	151	162	619	13.4	3.8
Fayette	9,013	8,985	8,245	11,311	11,771	49,325	64.6	20.2
Fleming	239	215	236	130	205	1,025	25.3	6.7
Floyd	435	321	174	297	216	1,443	11.0	1.3
Franklin	1,942	1,869	1,262	715	938	6,726	44.7	7.0
Fulton	46	56	50	131	91	374	14.2	5.3
Gallatin	251	145	241	220	218	1,075	58.4	4.7
Garrard	161	167	138	58	99	623	16.0	3.3
Grant	1,118	958	748	723	935	4,482	80.5	7.8
Graves	338	169	559	513	832	2,411	20.6	5.6
Grayson	763	429	197	338	196	1,923	27.0	8.7
Green	99	57	46	67	34	303	8.5	6.7
Greenup	481	463	362	290	651	2,247	17.9	5.5
Hancock	123	128	181	148	99	679	24.5	7.7
Hardin	4,910	4,063	3,255	2,621	3,049	17,898	68.6	19.5
Harlan	201	143	178	102	136	760	6.8	1.2
Harrison	294	282	316	295	458	1,645	29.9	7.3
Hart	194	123	139	136	133	725	14.2	6.1
Henderson	1,096	635	806	928	895	4,360	29.4	6.7
Henry	643	500	479	505	528	2,655	58.8	5.9
Hickman	43	68	71	110	96	388	19.8	7.1
Hopkins	1,655	1,159	1,404	1,352	1,007	6,577	41.7	7.1
Jackson	18	12	7	54	15	106	3.0	0.9
Jefferson	7,082	2,282	3,176	20,892	12,787	46,219	20.5	7.0
Jessamine	891	980	1,019	697	490	4,077	40.3	8.9
Johnson	275	239	262	186	129	1,091	14.8	4.2
Kenton	4,182	3,643	3,890	3,071	2,528	17,314	37.7	9.4
Knott	46	70	74	51	78	319	6.5	1.7
Knox	497	446	463	418	351	2,175	27.7	4.0
Larue	410	386	164	156	160	1,276	30.3	8.0
Laurel	898	950	754	584	660	3,846	28.3	5.1
Lawrence	246	290	176	242	349	1,303	31.3	11.3
Lee	75	28	25	113	70	311	14.2	5.2
Leslie	144	73	88	129	386	820	21.2	4.6
Letcher	61	42	47	52	48	250	3.0	0.7
Lewis	72	53	120	205	415	865	20.9	4.2
Lincoln	492	499	435	308	331	2,065	32.9	7.3

TABLE 37. SUMMARY OF SPEEDING CONVICTIONS BY COUNTY (1987-1991 DATA)(continued)

COUNTY	SPEEDING CONVICTIONS PER CALENDAR YEAR 1988	1989	1990	1991	1992	TOTAL SPEEDING CONVICTIONS (FIVE YEARS)	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	SPEEDING CONVICTIONS PER SPEED-RELATED ACCIDENT
Livingston	140	260	277	285	280	1,242	37.7	17.0
Logan	226	248	587	558	638	2,257	27.5	9.9
Lyon	305	390	528	371	394	1,988	91.1	14.9
McCracken	1,562	1,572	1,587	1,066	1,330	7,117	31.5	9.2
McCreary	146	118	285	342	312	1,203	26.1	5.5
McLean	156	142	119	174	227	818	23.2	6.2
Madison	1,589	1,586	1,456	1,294	1,377	7,302	41.8	5.0
Magoffin	283	171	110	68	133	765	20.3	3.1
Marion	441	270	254	259	292	1,516	28.4	6.0
Marshall	798	747	1,116	912	794	4,367	43.7	15.0
Martin	96	50	86	59	90	381	9.8	1.4
Mason	408	190	279	203	388	1,468	26.7	6.5
Meade	243	269	294	347	343	1,496	24.4	5.2
Menifee	35	7	7	4	9	62	3.6	1.0
Mercer	598	593	582	573	477	2,823	41.9	7.8
Metcalfe	374	443	396	302	292	1,807	60.2	16.7
Monroe	36	30	31	12	42	151	3.9	2.1
Montgomery	251	80	95	117	117	660	10.1	3.5
Morgan	122	131	154	166	164	737	21.3	3.9
Muhlenberg	749	687	1,097	1,029	691	4,253	40.1	6.9
Nelson	1,157	670	770	622	554	3,773	37.1	9.2
Nicholas	102	161	253	156	84	756	32.4	11.6
Ohio	447	362	256	242	340	1,647	23.1	5.1
Oldham	1,443	1,337	1,248	1,438	995	6,461	57.6	17.9
Owen	80	66	78	49	89	362	13.0	2.1
Owsley	33	21	13	12	21	100	6.4	1.2
Pendleton	373	364	341	225	396	1,699	43.4	15.6
Perry	242	158	159	182	147	888	9.4	2.0
Pike	841	530	520	360	361	2,612	11.6	1.2
Powell	187	101	109	187	149	733	19.5	3.9
Pulaski	992	945	1,079	855	725	4,596	28.3	7.2
Robertson	77	90	85	83	43	378	52.0	23.6
Rockcastle	308	361	846	976	381	2,872	61.5	8.6
Rowan	515	390	268	245	300	1,718	30.6	3.1
Russell	112	166	103	41	160	582	11.5	2.8
Scott	1,442	1,736	1,504	1,498	722	6,902	85.5	16.4
Shelby	1,380	921	730	741	966	4,738	55.4	7.4
Simpson	213	237	242	134	224	1,050	20.4	8.2
Spencer	154	171	195	203	99	822	32.7	7.5
Taylor	464	592	772	677	671	3,176	43.7	17.0
Todd	134	71	248	228	135	816	23.0	4.5
Trigg	288	246	209	242	280	1,265	34.1	8.9
Trimble	54	33	61	97	69	314	14.7	3.0
Union	608	717	752	514	397	2,988	49.7	11.1
Warren	2,605	1,550	1,413	1,436	2,005	9,009	35.5	5.8
Washington	210	224	265	302	360	1,361	38.8	11.6
Wayne	120	149	186	174	140	769	14.1	3.6
Webster	176	118	130	68	99	591	12.1	4.9
Whitley	223	188	245	208	203	1,067	10.1	1.5
Wolfe	305	366	369	260	231	1,531	74.4	10.3
Woodford	1,612	2,516	2,035	1,718	2,690	10,571	149.4	21.1
TOTAL	84,034	72,689	73,219	88,462	80,909	399,313	33.0	7.6

TABLE 38. SPEEDING CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES) (1988-1992)

POPULATION CATEGORY	COUNTY	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTY	SPEEDING CONVICTIONS PER SPEED-RELATED ACCIDENT
UNDER 10,000	Lyon	91.1	Robertson	23.6
	Wolfe	74.4	Cumberland	17.4
	Carroll	71.3	Livingston	17.0
	Metcalfe	60.2	Metcalfe	16.7
	Gallatin	58.4	Lyon	14.9
	Robertson	52.0	Carlisle	12.4
	Livingston	37.7	Bracken	11.6
	Bracken	36.9	Nicholas	11.6
	Spencer	32.7	Wolfe	10.3
	Nicholas	32.4	Crittenden	9.7
	Carlisle	32.3	Carroll	7.9
	Ballard	26.3	Hancock	7.7
	Cumberland	25.7	Spencer	7.5
	Hancock	24.5	Clinton	7.3
	McLean	23.2	Hickman	7.1
	Hickman	19.8	Ballard	6.2
	Crittenden	18.5	McLean	6.2
	Bath	16.1	Fulton	5.3
	Trimble	14.7	Lee	5.2
	Fulton	14.2	Gallatin	4.7
	Lee	14.2	Trimble	3.0
	Owen	13.0	Bath	2.2
	Clinton	10.3	Owen	2.1
	Owsley	6.4	Owsley	1.2
	Menifee	3.6	Menifee	1.0
	Elliott	1.2	Elliott	0.3
10,000 - 14,999	Scott	85.5	Scott	16.4
	Anderson	64.7	Pendleton	15.6
	Rockcastle	61.5	Anderson	14.0
	Henry	58.8	Caldwell	12.1
	Pendleton	43.4	Washington	11.6
	Caldwell	42.8	Lawrence	11.3
	Washington	38.8	Trigg	8.9
	Trigg	34.1	Rockcastle	8.6
	Lawrence	31.3	Larue	8.0
	Larue	30.3	Fleming	6.7
	Fleming	25.3	Green	6.7
	Todd	23.0	Hart	6.1
	Morgan	21.3	Henry	5.9
	Leslie	21.2	Webster	4.9
	Lewis	20.9	Butler	4.9
	Magoffin	20.3	Leslie	4.6
	Powell	19.5	Todd	4.5
	Butler	16.1	Lewis	4.2
	Garrard	16.0	Powell	3.9
	Hart	14.2	Morgan	3.9
	Estill	13.4	Estill	3.8
	Allen	12.9	Casey	3.7
	Webster	12.1	Garrard	3.3
	Casey	12.0	Magoffin	3.1
	Russell	11.5	Russell	2.8
	Martin	9.8	Allen	2.3
	Edmonson	9.7	Monroe	2.1
	Green	8.5	Edmonson	1.4
	Monroe	3.9	Martin	1.4
	Jackson	3.0	Jackson	0.9
15,000 - 24,999	Woodford	149.4	Woodford	21.1
	Grant	80.5	Taylor	17.0
	Bourbon	68.9	Union	11.1
	Shelby	55.4	Logan	9.9
	Union	49.7	Bourbon	9.6
	Taylor	43.7	Adair	9.3
	Mercer	41.9	Grayson	8.7
	Lincoln	32.9	Simpson	8.2
	Adair	31.5	Breckinridge	7.9
	Rowan	30.6	Grant	7.8
	Harrison	29.9	Shelby	7.4

TABLE 38. SPEEDING CONVICTION RATES IN DECREASING ORDER (BY COUNTY POPULATION CATEGORIES) (1986-1990) (continued)

POPULATION CATEGORY	COUNTY	ANNUAL AVERAGE SPEEDING CONVICTIONS PER 1,000 LICENSED DRIVERS	COUNTY	SPEEDING CONVICTIONS PER SPEED-RELATED ACCIDENT
15,000 - 24,999	Marion	28.4	Lincoln	7.3
(cont.)	Logan	27.5	Harrison	7.3
	Grayson	27.0	Mercer	7.0
	Mason	26.7	Mason	6.5
	McCreary	26.1	Marion	6.0
	Meade	24.4	McCreary	5.5
	Ohio	23.1	Meade	5.2
	Simpson	20.4	Ohio	5.1
	Breckinridge	15.1	Johnson	4.2
	Johnson	14.8	Wayne	3.6
	Wayne	14.1	Montgomery	3.5
	Carter	11.7	Rowan	3.1
	Montgomery	10.1	Carter	1.9
	Breathitt	7.9	Knott	1.7
	Clay	7.1	Breathitt	1.3
	Knott	6.5	Clay	1.2
25,000 - 50,000	Oldham	57.6	Barren	18.3
	Franklin	44.7	Oldham	17.9
	Marshall	43.7	Marshall	15.0
	Barren	42.8	Calloway	9.3
	Hopkins	41.7	Nelson	9.2
	Clark	41.1	Jessamine	8.9
	Jessamine	40.3	Bullitt	8.1
	Muhlenberg	40.1	Pulaski	7.2
	Nelson	37.1	Hopkins	7.1
	Henderson	29.4	Boyle	7.1
	Boyle	28.9	Franklin	7.0
	Laurel	28.3	Clark	6.9
	Pulaski	28.3	Muhlenberg	6.9
	Knox	27.7	Henderson	6.7
	Calloway	27.3	Graves	5.6
	Bullitt	24.4	Greenup	5.5
	Graves	20.6	Laurel	5.1
	Greenup	17.9	Knox	4.0
	Bell	13.1	Bell	2.9
	Floyd	11.0	Perry	2.0
	Whitley	10.1	Whitley	1.5
	Perry	9.4	Floyd	1.3
	Harlan	6.8	Harlan	1.2
	Letcher	3.0	Letcher	0.7
OVER 50,000	Hardin	68.6	Fayette	20.2
	Fayette	64.6	Hardin	19.5
	Boone	63.0	Campbell	12.7
	Christian	47.9	Boyd	10.9
	Campbell	43.7	Kenton	9.4
	Boyd	42.4	Boone	9.3
	Madison	41.8	McCracken	9.2
	Kenton	37.7	Daviess	8.3
	Warren	35.5	Christian	7.2
	McCracken	31.5	Jefferson	7.0
	Daviess	29.4	Warren	5.8
	Jefferson	20.5	Madison	5.0
	Pike	11.6	Pike	1.2

TABLE 39. SUMMARY OF SPEED MONITORING PROGRAM FOR 1992

HIGHWAY TYPE	MILES	NUMBER OF MONITOR LOCATIONS	NUMBER OF VEHICLES MEASURED
Urban Interstates	95	4	312,545
Urban Other Freeways & Expresssways	48	2	104,073
Urban Arterials	427	8	54,997
Rural Interstates*	580	6	182,706
Rural Arterials	2,572	8	71,342
Rural Major Collectors	6,921	7	9,282
State Total**	10,063	29	552,239

HIGHWAY TYPE	AVERAGE SPEED (MPH)	MEDIAN SPEED (MPH)	85TH PERCENTILE SPEED (MPH)	PERCENT OF MOTORISTS EXCEEDING 55 MPH	60 MPH	65 MPH
Urban Interstates	58.9	59.5	65.9	72.2	40.5	14.6
Urban Other Freeways & Expressways	57.9	58.3	64.6	66.8	30.5	9.2
Urban Arterial	49.2	51.4	58.8	25.2	6.9	1.5
Rural Interstate*	62.8	63.8	70.2	88.5	68.5	35.0
Rural Arterials	55.1	55.8	63.0	49.0	20.5	6.7
Rural Major Collectors	47.1	49.7	58.3	22.1	6.8	1.9

* 65 mph speed zones.

** This average is computed using feighted factors to reflect vehicle miles travelled. (Rural interstates were excluded from the State Total because all data were collected in 65 mph zones.)

TABLE 40. COMPLIANCE WITH 55-SPEED LIMIT (COMPARISON OF 1986 THROUGH 1992 DATA)

	MEDIAN SPEED						
HIGHWAY TYPE	1986	1987	1988	1989	1990	1991	1992
Urban Interstate	55.8	51.0	59.4	59.0	58.5	59.1	59.5
Rural Interstate	57.1	*	63.5	62.8	63.5	64.2	63.8
State Total	54.3	*	53.6	55.2	54.8	52.9	53.9

	85TH PERCENTILE SPEED						
HIGHWAY TYPE	1986	1987	1988	1989	1990	1991	1992
Urban Interstate	63.8	60.6	65.8	65.2	64.7	65.7	65.9
Rural Interstate	64.8	*	70.3	70.1	70.3	70.7	70.2
State Total	62.9	*	60.8	62.2	63.5	60.2	61.4

	PERCENT OF MOTORISTS EXCEEDING 55 MPH						
HIGHWAY TYPE	1986	1987	1988	1989	1990	1991	1992
Urban Interstate	54.6	49.6	73.4	71.0	68.1	70.2	72.2
Rural Interstate	62.1	*	87.4	84.6	88.4	89.0	88.5
State Total**	48.3	36.6	39.9	46.8	45.9	37.3	41.6

* No annual summary for rural interstates was prepared in 1987 since the speed limit increased to 65 mph in June 1987.

** This average is computed using weighted factors to reflect vehicle miles travelled. (Rural interstates were excluded after 1986 from the State Total because data were collected in 65 mph zones.)

TABLE 41. ACCIDENT TREND ANALYSIS

ACCIDENT STATISTIC	NUMBER IN GIVEN YEAR 1988	1989	1990	1991	4-YEAR AVERAGE 1988-91	1992	1992 PERCENT CHANGE
Total Accidents	147,587	151,422	148,158	134,207	145,344	141,211	-2.8
Fatal Accidents	719	690	758	724	723	722	-0.1
Fatalities	840	776	851	828	824	819	-0.6
Injury Accidents	34,164	35,504	35,670	32,957	34,579	34,691	0.3
Injuries	51,442	53,383	54,057	49,926	52,202	52,382	0.3
Fatal and Injury Accidents	34,883	36,194	36,428	33,681	35,296	35,413	0.3
Total Vehicle Miles (Billions)	31,528	32,166	33,637	35,213	33,136	37,959	14.6
Total Acc/100 MVM	468	471	440	352	433	372	-14.1
Fatal Acc/100 MVM	2.28	2.15	2.25	2.06	2.18	2.16	-12.8
Fatalities/100 MVM	2.66	2.41	2.53	2.35	2.49	2.16	-13.3
Speed-Related Accidents	10,433	11,787	11,120	9,455	10,699	9,728	-9.1
Speed-Related Fatal Accidents	234	244	242	251	243	186	-23.5
Alcohol-Related Accidents	7,890	7,669	8,052	7,185	7,699	6,969	-9.5
Alcohol-Related Fatal Accidents	194	172	196	195	189	152	-19.6
Drug-Related Accidents	387	378	368	331	368	348	-4.9
Pedestrian Accidents	1,534	1,542	1,486	1,452	1,504	1,421	-5.5
Bicycle Accidents	827	807	730	706	768	795	3.5
Motorcycle Accidents	1,295	1,084	1,132	1,035	1,136	1,014	-10.7
School Bus Accidents	755	819	822	838	808	855	5.8
Truck Accidents	11,110	11,566	11,103	9,365	10,786	10,291	-4.6

* Percent change from 1988-1991 average to 1992.

Table 42. NUMBER OF ACCIDENTS AND RATES BY ACCIDENT TYPE FOR EACH COUNTY

	PEDESTRIAN ACCIDENTS		BICYCLE ACCIDENTS		MOTORCYCLE ACCIDENTS		SCHOOL BUS ACCIDENTS		TRUCK ACCIDENTS	
	NUMBER*	RATE**	NUMBER*	RATE**	NUMBER*	RATE**	NUMBER*	RATE**	NUMBER*	RATE**
Adair	6	0.8	4	0.5	30	3.9	13	1.7	159	20.7
Allen	11	1.5	3	0.4	23	3.1	9	1.2	147	20.1
Anderson	17	2.3	12	1.6	17	2.3	18	2.5	188	25.8
Ballard	6	1.5	6	1.5	12	3.0	8	2.0	153	38.7
Barren	21	1.2	17	1.0	52	3.1	29	1.7	509	29.9
Bath	2	0.4	3	0.6	12	2.5	10	2.1	113	23.3
Bell	42	2.7	23	1.5	44	2.8	39	2.5	356	22.6
Boone	81	2.8	52	1.8	135	4.7	66	2.3	2029	70.5
Bourbon	11	1.1	16	1.7	28	2.9	18	1.9	304	31.6
Boyd	66	2.6	55	2.2	106	4.1	62	2.4	964	37.7
Boyle	34	2.7	22	1.7	43	3.4	20	1.6	339	26.4
Bracken	1	0.3	1	0.3	8	2.1	4	1.0	55	14.2
Breathitt	16	2.0	7	0.9	28	3.6	28	3.6	224	28.5
Breckinridge	3	0.4	2	0.2	18	2.2	20	2.5	118	14.5
Bullitt	34	1.4	35	1.5	59	2.5	51	2.1	566	23.8
Butler	7	1.2	4	0.7	8	1.4	9	1.6	98	17.4
Caldwell	7	1.1	6	0.9	18	2.7	8	1.2	155	23.4
Calloway	26	1.7	19	1.2	32	2.1	22	1.4	199	12.9
Campbell	175	4.2	133	3.2	118	2.8	47	1.1	1056	25.2
Carlisle	2	0.8	0	0.0	4	1.5	1	0.4	49	18.7
Carroll	16	3.4	12	2.6	29	6.2	9	1.9	207	44.6
Carter	12	1.0	9	0.7	37	3.0	33	2.7	273	22.4
Casey	7	1.0	3	0.4	18	2.5	3	0.4	87	12.2
Christian	55	1.6	85	2.5	104	3.0	59	1.7	747	21.7
Clark	36	2.4	30	2.0	50	3.4	53	3.6	416	28.2
Clay	8	0.7	9	0.8	23	2.1	19	1.7	207	19.0
Clinton	10	2.2	2	0.4	7	1.5	6	1.3	74	16.2
Crittenden	4	0.9	1	0.2	11	2.4	6	1.3	64	13.9
Cumberland	1	0.3	2	0.6	1	0.3	1	0.3	30	8.8
Daviess	122	2.8	199	4.6	165	3.8	88	2.0	1160	26.6
Edmonson	3	0.6	2	0.4	10	1.9	18	3.5	60	11.6
Elliott	3	0.9	1	0.3	13	4.0	1	0.3	41	12.7
Estill	14	1.9	3	0.4	17	2.3	15	2.1	55	7.5
Fayette	469	4.2	482	4.3	440	3.9	413	3.7	4083	36.2
Fleming	10	1.6	3	0.5	9	1.5	7	1.1	133	21.6
Floyd	47	2.2	18	0.8	90	4.1	68	3.1	848	38.9
Franklin	51	2.3	34	1.6	57	2.6	59	2.7	600	27.4
Fulton	13	3.1	16	3.9	5	1.2	3	0.7	98	23.7
Gallatin	5	1.9	4	1.5	10	3.7	3	1.1	141	52.3
Garrard	7	1.2	2	0.3	12	2.1	5	0.9	78	13.5
Grant	14	1.8	3	0.4	26	3.3	30	3.8	347	44.1
Graves	25	1.5	25	1.5	68	4.1	25	1.5	354	21.1
Grayson	15	1.4	8	0.8	23	2.2	12	1.1	218	20.7
Green	5	1.0	0	0.0	9	1.7	5	1.0	89	17.2
Greenup	21	1.1	14	0.8	37	2.0	29	1.6	307	16.7
Hancock	3	0.8	4	1.0	11	2.8	5	1.3	78	19.8
Hardin	61	1.4	80	1.8	137	3.1	71	1.6	1196	26.8
Harlan	42	2.3	28	1.5	50	2.7	38	2.1	415	22.7
Harrison	17	2.1	11	1.4	25	3.1	29	3.6	193	23.8
Hart	8	1.1	3	0.4	18	2.4	9	1.2	274	36.8
Henderson	58	2.7	86	4.0	114	5.3	42	2.0	816	37.9
Henry	5	0.8	3	0.5	15	2.3	17	2.7	279	43.5
Hickman	3	1.1	0	0.0	3	1.1	2	0.7	43	15.5
Hopkins	43	1.9	59	2.6	93	4.0	61	2.6	671	29.1
Jackson	5	0.8	1	0.2	17	2.8	12	2.0	69	11.5
Jefferson	1376	4.1	1207	3.6	857	2.6	774	2.3	10718	32.2
Jessamine	17	1.1	25	1.6	44	2.9	53	3.5	395	25.9
Johnson	21	1.8	10	0.9	17	1.5	13	1.1	262	22.5
Kenton	333	4.7	287	4.0	204	2.9	160	2.3	2468	34.8
Knott	10	1.1	8	0.9	26	2.9	32	3.6	193	21.6

Table 42. NUMBER OF ACCIDENTS AND RATES BY ACCIDENT TYPE FOR EACH COUNTY (continued)

	PEDESTRIAN ACCIDENTS		BICYCLE ACCIDENTS		MOTORCYCLE ACCIDENTS		SCHOOL BUS ACCIDENTS		TRUCK ACCIDENTS	
	NUMBER*	RATE**	NUMBER*	RATE**	NUMBER*	RATE**	NUMBER*	RATE**	NUMBER*	RATE**
Knox	19	1.3	12	0.8	41	2.8	35	2.4	213	14.4
Larue	9	1.5	2	0.3	6	1.0	13	2.2	118	20.2
Laurel	22	1.0	18	0.8	65	3.0	40	1.8	781	36.0
Lawrence	3	0.4	1	0.1	19	2.7	10	1.4	216	30.9
Lee	2	0.5	1	0.3	3	0.8	5	1.3	61	16.4
Leslie	5	0.7	0	0.0	30	4.4	3	0.4	111	16.3
Letcher	18	1.3	6	0.4	45	3.3	31	2.3	378	28.0
Lewis	10	1.5	3	0.5	18	2.8	16	2.5	115	17.7
Lincoln	9	0.9	1	0.1	28	2.8	12	1.2	198	19.8
Livingston	4	0.9	6	1.3	8	1.8	0	0.0	91	20.1
Logan	13	1.1	13	1.1	27	2.2	22	1.8	330	27.0
Lyon	1	0.3	4	1.2	4	1.2	2	0.6	101	30.5
McCracken	39	1.2	92	2.9	185	5.9	59	1.9	901	28.7
McCreary	7	0.9	3	0.4	15	1.9	17	2.2	70	9.0
McLean	5	1.0	9	1.9	13	2.7	6	1.2	76	15.8
Madison	37	1.3	40	1.4	102	3.5	64	2.2	1112	38.7
Magoffin	3	0.5	4	0.6	10	1.5	7	1.1	147	22.5
Marion	17	2.1	9	1.1	26	3.2	29	3.5	121	14.7
Marshall	11	0.8	7	0.5	42	3.1	19	1.4	327	24.0
Martin	9	1.4	8	1.3	7	1.1	19	3.0	207	33.1
Mason	10	1.2	17	2.0	33	4.0	24	2.9	325	39.0
Meade	11	0.9	7	0.6	23	1.9	11	0.9	170	14.1
Menifee	1	0.4	3	1.2	3	1.2	3	1.2	28	11.0
Mercer	14	1.5	9	0.9	35	3.7	23	2.4	238	24.9
Metcalfe	12	2.7	2	0.4	8	1.8	16	3.6	71	15.8
Monroe	4	0.7	3	0.5	10	1.8	8	1.4	45	7.9
Montgomery	14	1.4	6	0.6	21	2.1	19	1.9	226	23.1
Morgan	9	1.5	0	0.0	17	2.9	16	2.7	97	16.7
Muhlenberg	18	1.1	20	1.3	50	3.2	40	2.6	397	25.4
Nelson	15	1.0	19	1.3	41	2.8	30	2.0	316	21.3
Nicholas	1	0.3	4	1.2	4	1.2	3	0.9	41	12.2
Ohio	8	0.8	7	0.7	30	2.8	15	1.4	226	21.4
Oldham	18	1.1	15	0.9	27	1.6	34	2.0	368	22.1
Owen	9	2.0	2	0.4	18	4.0	13	2.9	87	19.3
Owsley	4	1.6	1	0.4	6	2.4	4	1.6	30	11.9
Pendleton	15	2.5	6	1.0	10	1.7	21	3.5	130	21.6
Perry	22	1.5	14	0.9	57	3.8	37	2.4	645	42.6
Pike	69	1.9	22	0.6	123	3.4	103	2.8	1579	43.5
Powell	5	0.9	3	0.5	17	2.9	8	1.4	115	19.7
Pulaski	32	1.3	10	0.4	70	2.8	59	2.4	560	22.6
Robertson	0	0.0	0	0.0	2	1.9	0	0.0	5	4.7
Rockcastle	8	1.1	1	0.1	16	2.2	14	1.9	238	32.2
Rowan	12	1.2	10	1.0	28	2.8	24	2.4	279	27.4
Russell	2	0.3	3	0.4	19	2.6	5	0.7	98	13.3
Scott	35	2.9	20	1.7	42	3.5	54	4.5	550	46.1
Shelby	18	1.5	23	1.9	40	3.2	30	2.4	568	45.8
Simpson	9	1.2	6	0.8	20	2.6	15	2.0	384	50.7
Spencer	4	1.2	1	0.3	8	2.4	7	2.1	30	8.8
Taylor	8	0.8	11	1.0	31	2.9	16	1.5	209	19.8
Todd	4	0.7	4	0.7	12	2.2	7	1.3	101	18.5
Trigg	9	1.7	5	1.0	22	4.2	13	2.5	119	23.0
Trimble	2	0.7	2	0.7	9	3.0	2	0.7	65	21.3
Union	9	1.1	14	1.7	29	3.5	13	1.6	184	22.2
Warren	61	1.6	110	2.9	178	4.6	109	2.8	1376	35.9
Washington	7	1.3	3	0.6	7	1.3	11	2.1	108	20.7
Wayne	10	1.1	7	0.8	81	9.3	20	2.3	95	10.9
Webster	11	1.6	6	0.9	16	2.3	15	2.1	250	35.8
Whitley	20	1.2	16	1.0	39	2.3	36	2.2	462	27.7
Wolfe	5	1.5	3	0.9	9	2.8	7	2.2	99	30.4
Woodford	14	1.4	15	1.5	18	1.8	25	2.5	279	28.0

* Five-Year (1988-1992) Total.

** Rates are annual accidents per 10,000 population.

TABLE 43. PEDESTRIAN ACCIDENT RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1988-1992 DATA)(ALL ROADS)

COUNTY	NUMBER OF ACCIDENTS	ANNUAL ACCIDENT RATE (ACCIDENTS PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Carroll	16	3.4
Fulton	13	3.1
Metcalfe	12	2.7
Clinton	10	2.2
Owen	9	2.0
Gallatin	5	1.9
Owsley	4	1.6
Ballard	6	1.5
Wolfe	5	1.5
Spencer	4	1.2
Hickman	3	1.1
McLean	5	1.0
Livingston	4	0.9
Crittenden	4	0.9
Elliott	3	0.9
Carlisle	2	0.8
Hancock	3	0.8
Trimble	2	0.7
Lee	2	0.5
Bath	2	0.4
Menifee	1	0.4
Lyon	1	0.3
Nicholas	1	0.3
Cumberland	1	0.3
Bracken	1	0.3
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Pendleton	15	2.5
Anderson	17	2.3
Estill	14	1.9
Trigg	9	1.7
Fleming	10	1.6
Webster	11	1.6
Allen	11	1.5
Larue	9	1.5
Lewis	10	1.5
Morgan	9	1.5
Martin	9	1.4
Washington	7	1.3
Garrard	7	1.2
Butler	7	1.2
Caldwell	7	1.1
Rockcastle	8	1.1
Hart	8	1.1
Green	5	1.0
Casey	7	1.0
Powell	5	0.9
Jackson	5	0.8
Henry	5	0.8
Leslie	5	0.7
Todd	4	0.7
Monroe	4	0.7
Edmonson	3	0.6
Magoffin	3	0.5
Lawrence	3	0.4
Russell	2	0.3
POPULATION CATEGORY 15,000-24,999		
Scott	35	2.9
Harrison	17	2.1
Marion	17	2.1
Breathitt	16	2.0
Grant	14	1.8
Johnson	21	1.8
Shelby	18	1.5
Mercer	14	1.5
Montgomery	14	1.4
Grayson	15	1.4
Woodford	14	1.4
Rowan	12	1.2
Mason	10	1.2
Simpson	9	1.2
Bourbon	11	1.1
Logan	13	1.1
Knott	10	1.1
Wayne	10	1.1
Union	9	1.1
Carter	12	1.0
McCreary	7	0.9
Meade	11	0.9
Lincoln	9	0.9
Taylor	8	0.8
Ohio	8	0.8
Adair	6	0.8
Clay	8	0.7
Breckinridge	3	0.4
POPULATION CATEGORY 25,000-50,000		
Boyle	34	2.7
Bell	42	2.7
Henderson	58	2.7
Clark	36	2.4
Harlan	42	2.3
Franklin	51	2.3
Floyd	47	2.2
Hopkins	43	1.9
Calloway	26	1.7
Graves	25	1.5
Perry	22	1.5
Bullitt	34	1.4
Pulaski	32	1.3
Letcher	18	1.3
Knox	19	1.3
Whitley	20	1.2
Barren	21	1.2
Muhlenberg	18	1.1
Jessamine	17	1.1
Oldham	18	1.1
Greenup	21	1.1
Nelson	15	1.0
Laurel	22	1.0
Marshall	11	0.8
POPULATION CATEGORY OVER 50,000		
Kenton	333	4.7
Fayette	469	4.2
Campbell	175	4.2
Jefferson	1376	4.1
Boone	81	2.8
Daviess	122	2.8
Boyd	66	2.6
Pike	69	1.9
Christian	55	1.6
Warren	61	1.6
Hardin	61	1.4
Madison	37	1.3
McCracken	39	1.2

TABLE 44. PEDESTRIAN ACCIDENT RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(1988-1992 DATA)

CITY	NUMBER OF ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	1476	11.0
Lexington	724	6.4
POPULATION CATEGORY 20,000-55,000		
Covington	373	17.2
Henderson	100	7.7
Richmond	80	7.6
Bowling Green	155	7.6
Ashland	90	7.6
Paducah	82	6.0
Owensboro	157	5.9
Frankfort	69	5.3
Hopkinsville	74	5.0
Jeffersontown	34	2.9
POPULATION CATEGORY 10,000-19,999		
Newport	160	17.0
Shively	77	9.9
Somerset	42	7.8
Middlesboro	42	7.4
Madisonville	59	7.3
Florence	65	7.0
Saint Matthews	50	6.3
Danville	39	6.3
Winchester	48	6.1
Glasgow	32	5.2
Erlanger	40	5.0
Georgetown	24	4.2
Elizabethtown	33	3.6
Murray	22	3.0
Nicholasville	16	2.4
Independence	12	2.3
Fort Thomas	15	1.9
Radcliff	18	1.8
POPULATION CATEGORY 5,000-9,999		
Maysville	38	10.6
Monticello	28	10.5
Bellevue	32	9.1
Pikeville	26	8.2
Bardstown	28	8.2
Hazard	21	7.8
Lawrenceburg	23	7.8
Corbin	28	7.5
Shelbyville	23	7.4
Morehead	30	7.2
Harrodsburg	25	6.8
Dayton	21	6.4
Russellville	23	6.2
Mount Sterling	16	6.0
Mayfield	30	6.0
Cynthiana	19	5.8
London	16	5.6
Lebanon	14	4.9
Fort Mitchell	18	4.8
Versailles	17	4.7
Franklin	16	4.2
Elsmere	14	4.1
Princeton	14	4.0
Fort Wright	12	3.7
Paris	16	3.7
Edgewood	14	3.4
Mount Washington	9	3.4
Flatwoods	13	3.3
Williamsburg	8	2.9
Berea	13	2.8
Taylor Mill	6	2.2
Campbellsville	7	1.5
Alexandria	4	1.4
POPULATION CATEGORY 2,500-4,999		
Carrollton	20	10.8
Prestonsburg	19	10.7
Springfield	14	9.7
Paintsville	18	8.3
Harlan	11	8.2
Ludlow	18	7.6
Morganfield	13	6.9
Providence	14	6.8
Shepherdsville	16	6.7
Irvine	8	5.6
Central City	14	5.6
Scottsville	12	5.6
Mount Vernon	7	5.3
Fulton	8	5.2
Leitchfield	13	5.2
Stanford	7	5.2
Hickman	7	5.2
Benton	10	5.1
Barbourville	9	4.9
Tompkinsville	7	4.9
Lagrange	9	4.7
Vine Grove	8	4.5
Southgate	7	4.3
Columbia	8	4.2
Lancaster	7	4.1
Hodgenville	5	3.7
Grayson	6	3.4
Dawson Springs	5	3.2
Greenville	7	3.0
Stanton	4	2.9
Jenkins	4	2.9
Beaver Dam	4	2.8
Cold Spring	4	2.8
Highland Heights	6	2.8
Williamstown	4	2.6
Flemingsburg	4	2.6
Cumberland	4	2.6
Lakeside Park	3	1.9
Marion	2	1.2
Russell	2	1.0
Park Hills	1	0.6
Wilmore	1	0.5

TABLE 45. BICYCLE ACCIDENT RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1988-1992 DATA)

COUNTY	NUMBER OF ACCIDENTS	ANNUAL ACCIDENT RATE (ACCIDENTS PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Fulton	16	3.9
Carroll	12	2.6
McLean	9	1.9
Gallatin	4	1.5
Ballard	6	1.5
Livingston	6	1.3
Menifee	3	1.2
Lyon	4	1.2
Nicholas	4	1.2
Hancock	4	1.0
Wolfe	3	0.9
Trimble	2	0.7
Bath	3	0.6
Cumberland	2	0.6
Owen	2	0.4
Metcalfe	2	0.4
Owsley	1	0.4
Clinton	2	0.4
Spencer	1	0.3
Elliott	1	0.3
Bracken	1	0.3
Lee	1	0.3
Crittenden	1	0.2
Hickman	0	0.0
Carlisle	0	0.0
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Anderson	12	1.6
Martin	8	1.3
Trigg	5	1.0
Pendleton	6	1.0
Caldwell	6	0.9
Webster	6	0.9
Todd	4	0.7
Butler	4	0.7
Washington	3	0.6
Magoffin	4	0.6
Lewis	3	0.5
Powell	3	0.5
Henry	3	0.5
Monroe	3	0.5
Fleming	3	0.5
Estill	3	0.4
Russell	3	0.4
Allen	3	0.4
Casey	3	0.4
Hart	3	0.4
Edmonson	2	0.4
Garrard	2	0.3
Larue	2	0.3
Jackson	1	0.2
Lawrence	1	0.1
Rockcastle	1	0.1
Morgan	0	0.0
Green	0	0.0
Leslie	0	0.0
POPULATION CATEGORY 15,000-24,999		
Mason	17	2.0
Shelby	23	1.9
Bourbon	16	1.7
Union	14	1.7
Scott	20	1.7
Woodford	15	1.5
Harrison	11	1.4
Logan	13	1.1
Marion	9	1.1
Rowan	10	1.0
Taylor	11	1.0
Knott	8	0.9
Mercer	9	0.9
Johnson	10	0.9
Breathitt	7	0.9
Grayson	8	0.8
Clay	9	0.8
Wayne	7	0.8
Simpson	6	0.8
Carter	9	0.7
Ohio	7	0.7
Meade	7	0.6
Montgomery	6	0.6
Adair	4	0.5
Grant	3	0.4
McCreary	3	0.4
Breckinridge	2	0.2
Lincoln	1	0.1
POPULATION CATEGORY 25,000-50,000		
Henderson	86	4.0
Hopkins	59	2.6
Clark	30	2.0
Boyle	22	1.7
Franklin	34	1.6
Jessamine	25	1.6
Harlan	28	1.5
Bullitt	35	1.5
Graves	25	1.5
Bell	23	1.5
Nelson	19	1.3
Muhlenberg	20	1.3
Calloway	19	1.2
Barren	17	1.0
Whitley	16	1.0
Oldham	15	0.9
Perry	14	0.9
Greenup	14	0.8
Laurel	18	0.8
Knox	12	0.8
Floyd	18	0.8
Marshall	7	0.5
Letcher	6	0.4
Pulaski	10	0.4
POPULATION CATEGORY OVER 50,000		
Daviess	199	4.6
Fayette	482	4.3
Kenton	287	4.0
Jefferson	1207	3.6
Campbell	133	3.2
Warren	110	2.9
McCracken	92	2.9
Christian	85	2.5
Boyd	55	2.2
Hardin	80	1.8
Boone	52	1.8
Madison	40	1.4
Pike	22	0.6

TABLE 46. BICYCLE ACCIDENT RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(1988-1992 DATA)

CITY	NUMBER OF ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Louisville	734	5.5
Lexington	481	4.3
POPULATION CATEGORY 20,000-55,000		
Covington	152	7.0
Henderson	85	6.6
Owensboro	158	5.9
Hopkinsville	80	5.4
Paducah	72	5.3
Bowling Green	95	4.7
Ashland	51	4.3
Jeffersontown	34	2.9
Richmond	22	2.1
Frankfort	23	1.8
POPULATION CATEGORY 10,000-19,999		
Madisonville	48	5.9
Newport	55	5.8
Shively	38	4.9
Erlanger	28	3.5
Georgetown	18	3.2
Elizabethtown	27	3.0
Florence	27	2.9
Saint Matthews	22	2.8
Radcliff	28	2.8
Winchester	22	2.8
Fort Thomas	22	2.7
Middlesboro	15	2.6
Murray	16	2.2
Nicholasville	13	1.9
Danville	12	1.9
Glasgow	12	1.9
Somerset	9	1.7
Independence	7	1.3
POPULATION CATEGORY 5,000-9,999		
Bellevue	22	6.3
Mayfield	26	5.2
Shelbyville	16	5.1
Dayton	16	4.9
Elsmere	16	4.7
Maysville	15	4.2
Lawrenceburg	12	4.1
Paris	17	3.9
Lebanon	11	3.9
Bardstown	12	3.5
Corbin	13	3.5
Monticello	9	3.4
Edgewood	13	3.2
Berea	14	3.1
London	9	3.1
Versailles	11	3.0
Cynthiana	9	2.8
Fort Wright	9	2.7
Franklin	8	2.1
Mount Washington	5	1.9
Hazard	5	1.8
Alexandria	5	1.8
Morehead	7	1.7
Princeton	6	1.7
Campbellsville	8	1.7
Pikeville	5	1.6
Harrodsburg	5	1.4
Russellville	5	1.3
Williamsburg	3	1.1
Mount Sterling	3	1.1
Fort Mitchell	2	0.5
Flatwoods	2	0.5
Villa Hills	2	0.5
Taylor Mill	1	0.4
POPULATION CATEGORY 2,500-4,999		
Ludlow	21	8.9
Carrollton	13	7.0
Harlan	9	6.7
Fulton	9	5.8
Lakeside Park	6	3.8
Shepherdsville	9	3.7
Highland Heights	7	3.3
Central City	8	3.2
Morganfield	6	3.2
Hickman	4	3.0
Paintsville	5	2.3
Prestonsburg	4	2.2
Lagrange	4	2.1
Irvine	3	2.1
Beaver Dam	3	2.1
Russell	4	2.0
Vine Grove	3	1.7
Calvert City	2	1.6
Providence	3	1.5
Cold Spring	2	1.4
Stanton	2	1.4
Tompkinsville	2	1.4
Greenville	3	1.3
Lancaster	2	1.2
Southgate	2	1.2
Marion	2	1.2
Leitchfield	3	1.2
Wilmore	2	0.9
Williamstown	1	0.7
Stanford	1	0.7
Springfield	1	0.7
Flemingsburg	1	0.7
Dawson Springs	1	0.6

TABLE 47. MOTORCYCLE ACCIDENT RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1988-1992 DATA)

COUNTY	NUMBER OF ACCIDENTS	ANNUAL ACCIDENT RATE (ACCIDENTS PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Carroll	29	6.2
Owen	18	4.0
Elliott	13	4.0
Gallatin	10	3.7
Ballard	12	3.0
Trimble	9	3.0
Wolfe	9	2.8
Hancock	11	2.8
McLean	13	2.7
Bath	12	2.5
Owsley	6	2.4
Crittenden	11	2.4
Spencer	8	2.4
Bracken	8	2.1
Robertson	2	1.9
Metcalfe	8	1.8
Livingston	8	1.8
Carlisle	4	1.5
Clinton	7	1.5
Nicholas	4	1.2
Lyon	4	1.2
Fulton	5	1.2
Menifee	3	1.2
Hickman	3	1.1
Lee	3	0.8
Cumberland	1	0.3
POPULATION CATEGORY 10,000-14,999		
Leslie	30	4.4
Trigg	22	4.2
Allen	23	3.1
Powell	17	2.9
Morgan	17	2.9
Lewis	18	2.8
Jackson	17	2.8
Lawrence	19	2.7
Caldwell	18	2.7
Russell	19	2.6
Casey	18	2.5
Hart	18	2.4
Webster	16	2.3
Anderson	17	2.3
Henry	15	2.3
Estill	17	2.3
Todd	12	2.2
Rockcastle	16	2.2
Garrard	12	2.1
Edmonson	10	1.9
Monroe	10	1.8
Pendleton	10	1.7
Green	9	1.7
Magoffin	10	1.5
Fleming	9	1.5
Butler	8	1.4
Washington	7	1.3
Martin	7	1.1
Larue	6	1.0
POPULATION CATEGORY 15,000-24,999		
Wayne	81	9.3
Mason	33	4.0
Adair	30	3.9
Mercer	35	3.7
Breathitt	28	3.6
Scott	42	3.5
Union	29	3.5
Grant	26	3.3
Shelby	40	3.2
Marion	26	3.2
Harrison	25	3.1
Carter	37	3.0
Taylor	31	2.9
Bourbon	28	2.9
Knott	26	2.9
Lincoln	28	2.8
Rowan	28	2.8
Ohio	30	2.8
Simpson	20	2.6
Logan	27	2.2
Grayson	23	2.2
Breckinridge	18	2.2
Clay	23	2.1
Montgomery	21	2.1
Meade	23	1.9
McCreary	15	1.9
Woodford	18	1.8
Johnson	17	1.5
POPULATION CATEGORY 25,000-50,000		
Henderson	114	5.3
Graves	68	4.1
Floyd	90	4.1
Hopkins	93	4.0
Perry	57	3.8
Boyle	43	3.4
Clark	50	3.4
Letcher	45	3.3
Muhlenberg	50	3.2
Marshall	42	3.1
Barren	52	3.1
Laurel	65	3.0
Jessamine	44	2.9
Bell	44	2.8
Nelson	41	2.8
Pulaski	70	2.8
Knox	41	2.8
Harlan	50	2.7
Franklin	57	2.6
Bullitt	59	2.5
Whitley	39	2.3
Calloway	32	2.1
Greenup	37	2.0
Oldham	27	1.6
POPULATION CATEGORY OVER 50,000		
McCracken	185	5.9
Boone	135	4.7
Warren	178	4.6
Boyd	106	4.1
Fayette	440	3.9
Daviess	165	3.8
Madison	102	3.5
Pike	123	3.4
Hardin	137	3.1
Christian	104	3.0
Kenton	204	2.9
Campbell	118	2.8
Jefferson	857	2.6

TABLE 48. MOTORCYCLE ACCIDENT RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(1988-1992 DATA)

CITY	NUMBER OF ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Lexington	442	3.9
Louisville	441	3.3
POPULATION CATEGORY 20,000-55,000		
Paducah	128	9.4
Henderson	74	5.7
Ashland	66	5.6
Bowling Green	112	5.5
Covington	91	4.2
Owensboro	99	3.7
Hopkinsville	51	3.4
Richmond	35	3.3
Frankfort	25	1.9
Jeffersontown	19	1.6
POPULATION CATEGORY 10,000-19,999		
Glasgow	37	6.0
Florence	49	5.3
Madisonville	39	4.8
Danville	27	4.3
Elizabethtown	37	4.1
Radcliff	41	4.1
Somerset	21	3.9
Shively	30	3.9
Newport	37	3.9
Erlanger	29	3.6
Middlesboro	20	3.5
Georgetown	20	3.5
Nicholasville	22	3.2
Independence	16	3.1
Saint Matthews	24	3.0
Murray	17	2.4
Winchester	17	2.2
Fort Thomas	7	0.9
POPULATION CATEGORY 5,000-9,999		
London	17	5.9
Harrodsburg	21	5.7
Maysville	20	5.6
Campbellsville	24	5.0
Hazard	13	4.8
Mayfield	23	4.6
Williamsburg	12	4.4
Monticello	11	4.1
Bardstown	14	4.1
Lebanon	11	3.9
Cynthiana	12	3.7
Russellville	13	3.5
Morehead	14	3.4
Paris	15	3.4
Mount Sterling	9	3.4
Bellevue	12	3.4
Dayton	11	3.3
Franklin	12	3.2
Corbin	12	3.2
Fort Wright	10	3.0
Shelbyville	9	2.9
Pikeville	9	2.8
Alexandria	7	2.5
Berea	11	2.4
Mount Washington	6	2.3
Fort Mitchell	8	2.2
Lawrenceburg	5	1.7
Princeton	6	1.7
Flatwoods	6	1.5
Edgewood	6	1.5
Taylor Mill	4	1.4
Versailles	4	1.1
Villa Hills	3	0.8
Elsmere	2	0.6
POPULATION CATEGORY 2,500-4,999		
Prestonsburg	16	9.0
Columbia	16	8.3
Scottsville	14	6.5
Russell	11	5.5
Shepherdsville	13	5.4
Stanford	7	5.2
Jenkins	7	5.1
Cumberland	8	5.1
Harlan	6	4.5
Barbourville	8	4.4
Williamstown	6	4.0
Calvert City	5	4.0
Dawson Springs	6	3.8
Benton	7	3.6
Irvine	5	3.5
Beaver Dam	5	3.4
Highland Heights	7	3.3
Greenville	7	3.0
Mount Vernon	4	3.0
Marion	5	3.0
Stanton	4	2.9
Carrollton	5	2.7
Grayson	4	2.3
Springfield	3	2.1
Tompkinsville	3	2.1
Leitchfield	5	2.0
Fulton	3	1.9
Southgate	3	1.8
Vine Grove	3	1.7
Ludlow	4	1.7
Lagrange	3	1.6
Hartford	2	1.6
Central City	4	1.6
Cold Spring	2	1.4
Paintsville	3	1.4
Park Hills	2	1.2
Morganfield	2	1.1
Providence	2	1.0
Wilmore	2	0.9
Flemingsburg	1	0.7
Hickman	1	0.7

TABLE 49. SCHOOL BUS ACCIDENT RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1988-1992 DATA)

COUNTY	NUMBER OF ACCIDENTS	ANNUAL ACCIDENT RATE (ACCIDENTS PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Metcalfe	16	3.6
Owen	13	2.9
Wolfe	7	2.2
Bath	10	2.1
Spencer	7	2.1
Ballard	8	2.0
Carroll	9	1.9
Owsley	4	1.6
Crittenden	6	1.3
Clinton	6	1.3
Hancock	5	1.3
Lee	5	1.3
McLean	6	1.2
Menifee	3	1.2
Gallatin	3	1.1
Bracken	4	1.0
Nicholas	3	0.9
Trimble	2	0.7
Hickman	2	0.7
Fulton	3	0.7
Lyon	2	0.6
Carlisle	1	0.4
Cumberland	1	0.3
Elliott	1	0.3
Livingston	0	0.0
Robertson	0	0.0
POPULATION CATEGORY 10,000-14,999		
Edmonson	18	3.5
Pendleton	21	3.5
Martin	19	3.0
Morgan	16	2.7
Henry	17	2.7
Anderson	18	2.5
Trigg	13	2.5
Lewis	16	2.5
Larue	13	2.2
Washington	11	2.1
Webster	15	2.1
Estill	15	2.1
Jackson	12	2.0
Rockcastle	14	1.9
Butler	9	1.6
Lawrence	10	1.4
Powell	8	1.4
Monroe	8	1.4
Todd	7	1.3
Caldwell	8	1.2
Allen	9	1.2
Hart	9	1.2
Magoffin	7	1.1
Fleming	7	1.1
Green	5	1.0
Garrard	5	0.9
Russell	5	0.7
Leslie	3	0.4
Casey	3	0.4
POPULATION CATEGORY 15,000-24,999		
Scott	54	4.5
Grant	30	3.8
Knott	32	3.6
Breathitt	28	3.6
Harrison	29	3.6
Marion	29	3.5
Mason	24	2.9
Carter	33	2.7
Woodford	25	2.5
Breckinridge	20	2.5
Rowan	24	2.4
Shelby	30	2.4
Mercer	23	2.4
Wayne	20	2.3
McCreary	17	2.2
Simpson	15	2.0
Bourbon	18	1.9
Montgomery	19	1.9
Logan	22	1.8
Clay	19	1.7
Adair	13	1.7
Union	13	1.6
Taylor	16	1.5
Ohio	15	1.4
Lincoln	12	1.2
Johnson	13	1.1
Grayson	12	1.1
Meade	11	0.9
POPULATION CATEGORY 25,000-50,000		
Clark	53	3.6
Jessamine	53	3.5
Floyd	68	3.1
Franklin	59	2.7
Muhlenberg	40	2.6
Hopkins	61	2.6
Bell	39	2.5
Knox	35	2.4
Perry	37	2.4
Pulaski	59	2.4
Letcher	31	2.3
Whitley	36	2.2
Bullitt	51	2.1
Harlan	38	2.1
Oldham	34	2.0
Henderson	42	2.0
Nelson	30	2.0
Laurel	40	1.8
Barren	29	1.7
Greenup	29	1.6
Boyle	20	1.6
Graves	25	1.5
Calloway	22	1.4
Marshall	19	1.4
POPULATION CATEGORY OVER 50,000		
Fayette	413	3.7
Warren	109	2.8
Pike	103	2.8
Boyd	62	2.4
Jefferson	774	2.3
Boone	66	2.3
Kenton	160	2.3
Madison	64	2.2
Daviess	88	2.0
McCracken	59	1.9
Christian	59	1.7
Hardin	71	1.6
Campbell	47	1.1

TABLE 50. SCHOOL BUS ACCIDENT RATES BY CITY AND POPULATION CATEGORY
(IN ORDER OF DECREASING PERCENTAGES)(1988-1992 DATA)

CITY	NUMBER OF ACCIDENTS	ACCIDENT RATE (ACCIDENTS PER 10,000 POPULATION)
POPULATION CATEGORY OVER 200,000		
Lexington	408	3.6
Louisville	415	3.1
POPULATION CATEGORY 20,000-55,000		
Covington	79	3.7
Ashland	43	3.6
Frankfort	45	3.5
Bowling Green	61	3.0
Hopkinsville	45	3.0
Paducah	36	2.6
Richmond	28	2.6
Owensboro	56	2.1
Henderson	23	1.8
Jeffersontown	16	1.4
POPULATION CATEGORY 10,000-19,999		
Shively	40	5.1
Somerset	27	5.0
Winchester	36	4.6
Georgetown	26	4.6
Nicholasville	25	3.7
Independence	18	3.4
Madisonville	27	3.3
Florence	31	3.3
Middlesboro	14	2.5
Elizabethtown	20	2.2
Glasgow	12	1.9
Danville	10	1.6
Newport	13	1.4
Saint Matthews	9	1.1
Erlanger	8	1.0
Radcliff	10	1.0
Murray	5	0.7
Fort Thomas	5	0.6
POPULATION CATEGORY 5,000-9,999		
Versailles	17	4.7
Bardstown	16	4.7
Lawrenceburg	13	4.4
Maysville	15	4.2
Monticello	11	4.1
Corbin	15	4.0
Lebanon	11	3.9
London	11	3.8
Harrodsburg	14	3.8
Cynthiana	11	3.4
Morehead	14	3.4
Shelbyville	10	3.2
Mount Sterling	8	3.0
Paris	12	2.7
Franklin	10	2.6
Mayfield	13	2.6
Hazard	7	2.6
Williamsburg	7	2.5
Edgewood	10	2.5
Campbellsville	12	2.5
Pikeville	8	2.5
Fort Wright	8	2.4
Russellville	8	2.1
Alexandria	6	2.1
Fort Mitchell	7	1.9
Mount Washington	5	1.9
Taylor Mill	5	1.8
Princeton	5	1.4
Flatwoods	5	1.3
Elsmere	4	1.2
Berea	5	1.1
Bellevue	1	0.3
Dayton	1	0.3
POPULATION CATEGORY 2,500-4,999		
Prestonsburg	13	7.3
Shepherdsville	16	6.7
Vine Grove	10	5.6
Carrollton	8	4.3
Beaver Dam	6	4.1
Barbourville	7	3.8
Harlan	5	3.7
Stanton	5	3.6
Greenville	8	3.4
Grayson	6	3.4
Flemingsburg	5	3.3
Scottsville	7	3.3
Williamstown	5	3.3
Marion	5	3.0
Tompkinsville	4	2.8
Lagrange	5	2.6
Columbia	5	2.6
Park Hills	4	2.4
Wilmore	5	2.4
Springfield	3	2.1
Benton	4	2.1
Irvine	3	2.1
Russell	4	2.0
Highland Heights	4	1.9
Cumberland	3	1.9
Central City	4	1.6
Stanford	2	1.5
Jenkins	2	1.5
Paintsville	3	1.4
Lancaster	2	1.2
Morganfield	2	1.1
Providence	2	1.0
Hartford	1	0.8
Hickman	1	0.7
Lakeside Park	1	0.6
Dawson Springs	1	0.6
Fulton	1	0.6
Leitchfield	1	0.4

TABLE 51. TRUCK ACCIDENT RATES BY COUNTY AND POPULATION CATEGORY (IN ORDER OF DECREASING PERCENTAGES) (1988-1992 DATA)

COUNTY	NUMBER OF ACCIDENTS	ANNUAL ACCIDENT RATE (ACCIDENTS PER 10,000 POP.)
POPULATION CATEGORY UNDER 10,000		
Gallatin	141	52.3
Carroll	207	44.6
Ballard	153	38.7
Lyon	101	30.5
Wolfe	99	30.4
Fulton	98	23.7
Bath	113	23.3
Trimble	65	21.3
Livingston	91	20.1
Hancock	78	19.8
Owen	87	19.3
Carlisle	49	18.7
Lee	61	16.4
Clinton	74	16.2
McLean	76	15.8
Metcalfe	71	15.8
Hickman	43	15.5
Bracken	55	14.2
Crittenden	64	13.9
Elliott	41	12.7
Nicholas	41	12.2
Owsley	30	11.9
Menifee	28	11.0
Cumberland	30	8.8
Spencer	30	8.8
Robertson	5	4.7
POPULATION CATEGORY 10,000-14,999		
Henry	279	43.5
Hart	274	36.8
Webster	250	35.8
Martin	207	33.1
Rockcastle	238	32.2
Lawrence	216	30.9
Anderson	188	25.8
Caldwell	155	23.4
Trigg	119	23.0
Magoffin	147	22.5
Pendleton	130	21.6
Fleming	133	21.6
Washington	108	20.7
Larue	118	20.2
Allen	147	20.1
Powell	115	19.7
Todd	101	18.5
Lewis	115	17.7
Butler	98	17.4
Green	89	17.2
Morgan	97	16.7
Leslie	111	16.3
Garrard	78	13.5
Russell	98	13.3
Casey	87	12.2
Edmonson	60	11.6
Jackson	69	11.5
Monroe	45	7.9
Estill	55	7.5
POPULATION CATEGORY 15,000-24,999		
Simpson	384	50.7
Scott	550	46.1
Shelby	568	45.8
Grant	347	44.1
Mason	325	39.0
Bourbon	304	31.6
Breathitt	224	28.5
Woodford	279	28.0
Rowan	279	27.4
Logan	330	27.0
Mercer	238	24.9
Harrison	193	23.8
Montgomery	226	23.1
Johnson	262	22.5
Carter	273	22.4
Union	184	22.2
Knott	193	21.6
Ohio	226	21.4
Grayson	218	20.7
Adair	159	20.7
Taylor	209	19.8
Lincoln	198	19.8
Clay	207	19.0
Marion	121	14.7
Breckinridge	118	14.5
Meade	170	14.1
Wayne	95	10.9
McCreary	70	9.0
POPULATION CATEGORY 25,000-50,000		
Perry	645	42.6
Floyd	848	38.9
Henderson	816	37.9
Laurel	781	36.0
Barren	509	29.9
Hopkins	671	29.1
Clark	416	28.2
Letcher	378	28.0
Whitley	462	27.7
Franklin	600	27.4
Boyle	339	26.4
Jessamine	395	25.9
Muhlenberg	397	25.4
Marshall	327	24.0
Bullitt	566	23.8
Harlan	415	22.7
Bell	356	22.6
Pulaski	560	22.6
Oldham	368	22.1
Nelson	316	21.3
Graves	354	21.1
Greenup	307	16.7
Knox	213	14.4
Calloway	199	12.9
POPULATION CATEGORY OVER 50,000		
Boone	2029	70.5
Pike	1579	43.5
Madison	1112	38.7
Boyd	964	37.7
Fayette	4083	36.2
Warren	1376	35.9
Kenton	2468	34.8
Jefferson	10718	32.2
McCracken	901	28.7
Hardin	1196	26.8
Daviess	1160	26.6
Campbell	1056	25.2
Christian	747	21.7

TABLE 52. ACCIDENTS INVOLVING VEHICLE DEFECT BEFORE AND AFTER REPEAL OF VEHICLE INSPECTION LAW

TIME PERIOD	TOTAL NUMBER OF ACCIDENTS*	NUMBER OF ACCIDENTS INVOLVING VEHICLE DEFECTS	PERCENT OF ALL ACCIDENTS INVOLVING VEHICLE DEFECTS
October 1976 - May 1978 (20 Months Before Repeal of Law)	246,500	14,440	5.86
June 1978 - December 1979 (19 Months After Repeal of Law)	233,155	16,527	7.09
Jan 1980 - Dec 1980	124,503	9,176	7.37
Jan 1981 - Dec 1981	121,810	9,196	7.55
Jan 1982 - Dec 1982	121,080	9,074	7.49
Jan 1983 - Dec 1983	124,228	9,307	7.49
Jan 1984 - Dec 1984	133,240	9,644	7.24
Jan 1985 - Dec 1985	137,877	9,415	6.83
Jan 1986 - Dec 1986	135,173	9,866	7.30
Jan 1987 - Dec 1987	138,031**	8,300	6.38
Jan 1988 - Dec 1988	143,159**	9,380	6.55
Jan 1989 - Dec 1989	146,879**	9,591	6.53
Jan 1990 - Dec 1990	143,713**	9,252	6.44
Jan 1991 - Dec 1991	130,181**	8,300	6.38
Jan 1992 - Dec 1992	136,975	8,260	6.03

* Does not include accidents in which the vehicle defect code was unknown.

** Total accidents based on factor obtained from previous year's data.

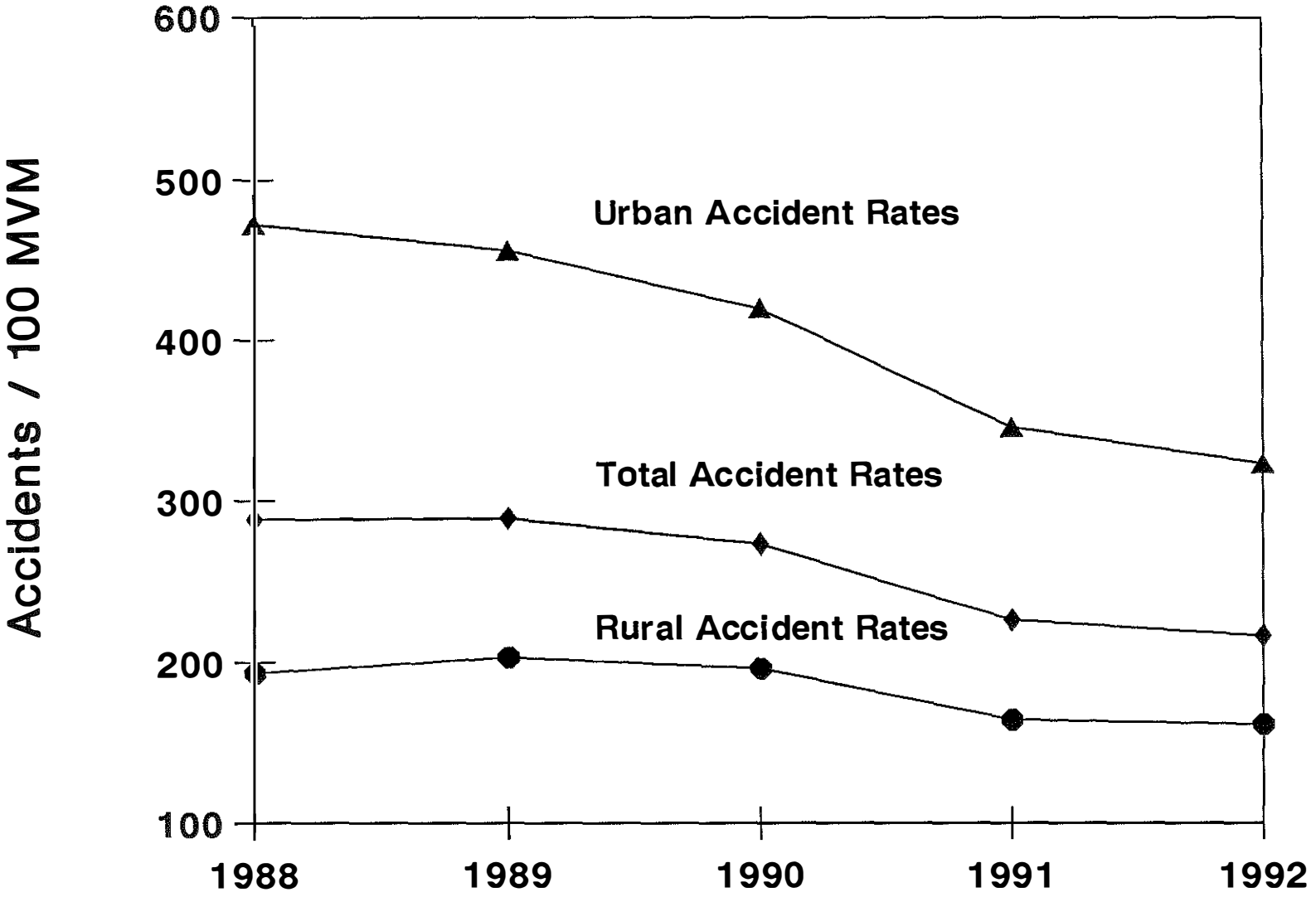

Figure 1. Trends in Accident Rates

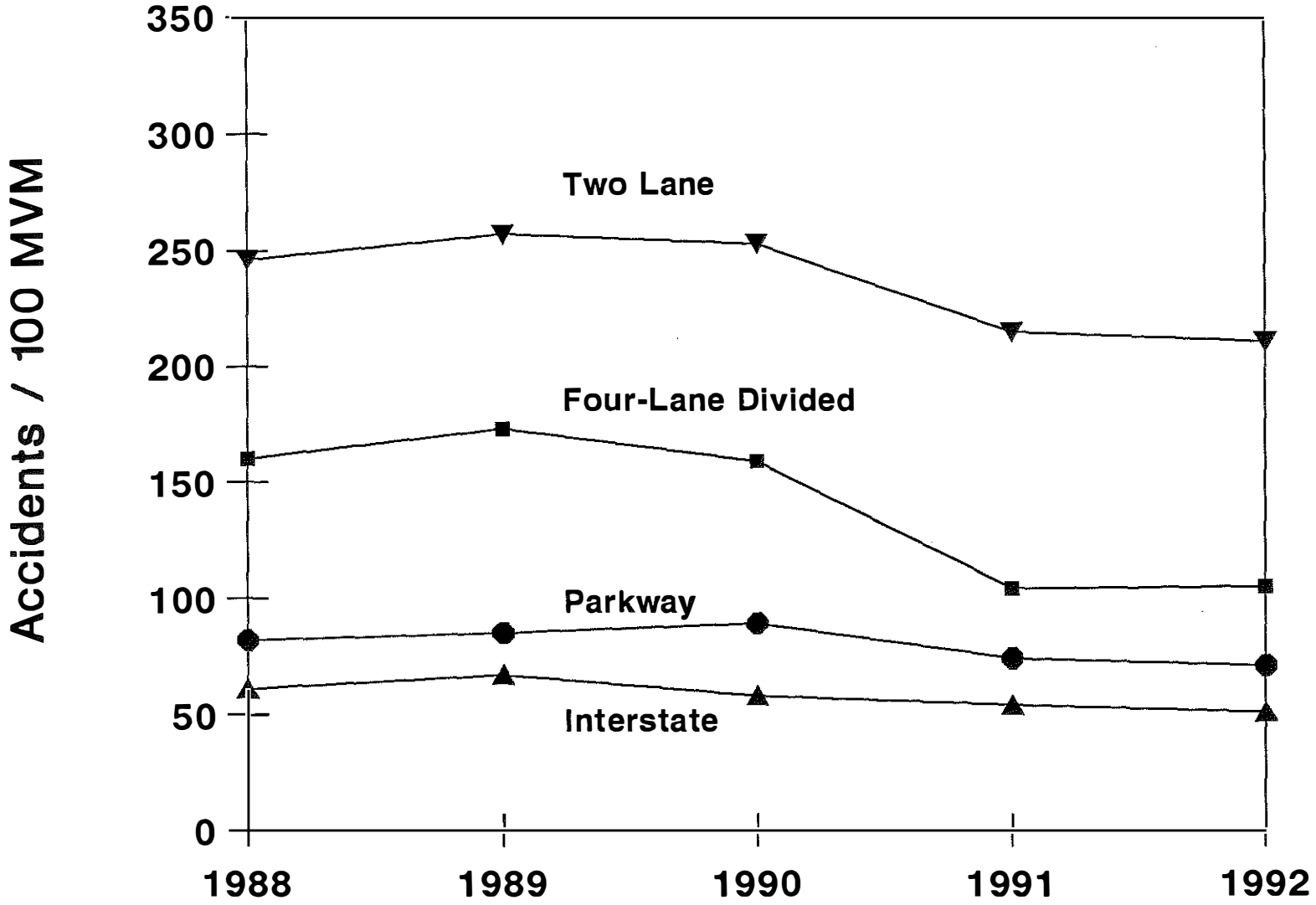

Figure 2. Trends in Rural Accident Rates

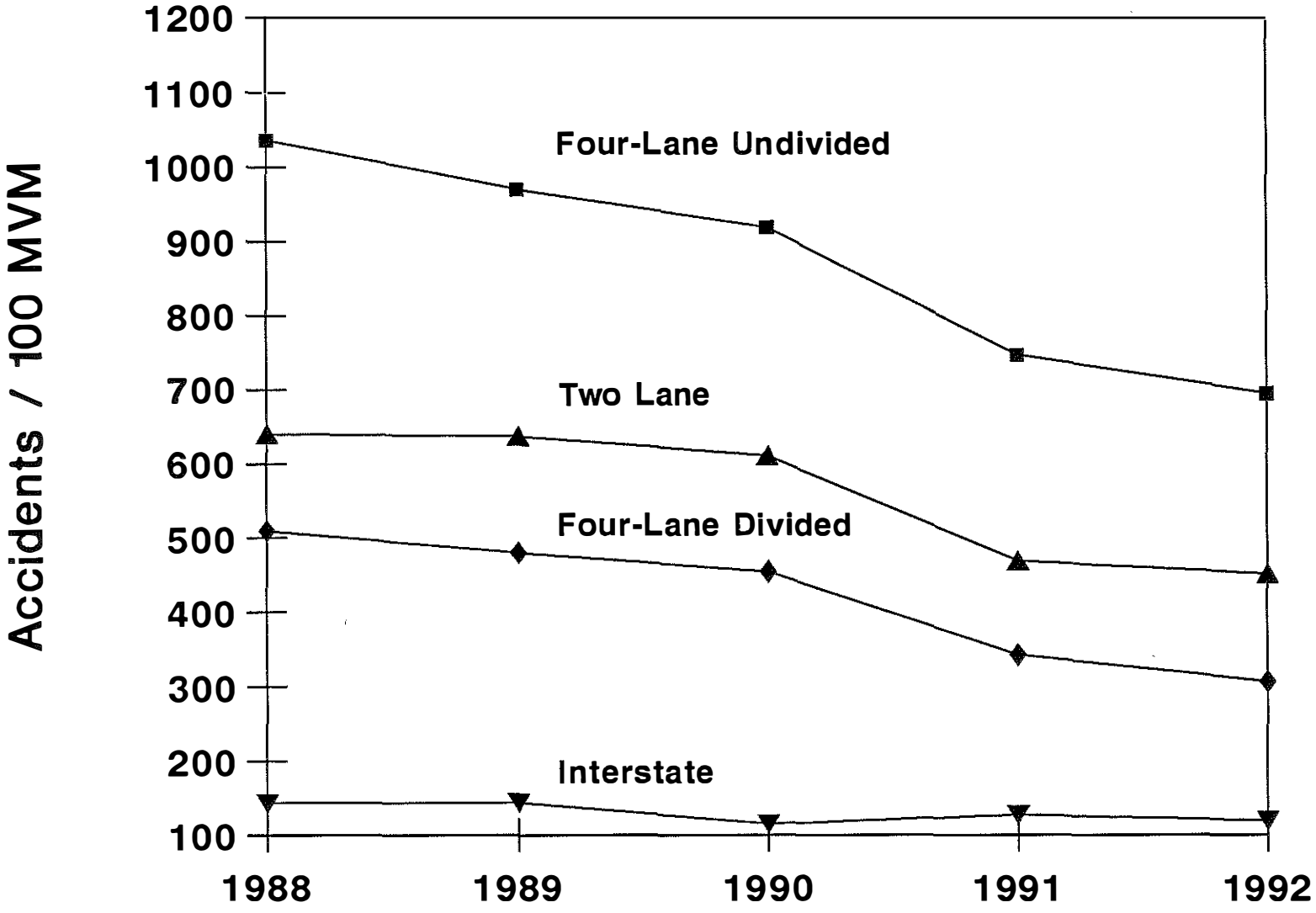

Figure 3. Trends in Urban Accident Rates

APPENDIX A

STATEWIDE ACCIDENT RATES AS A FUNCTION OF SEVERAL VARIABLES

Highways are grouped into various system classifications. Three common types of grouping include 1) functional classification, 2) federal-aid system, and 3) administrative classification. Statewide accident rates were determined for each of those groupings. Following is a summary of the findings.

Average statewide rates by functional classification are listed in Table A-1. Highways were grouped into a rural or urban category and then into systems such as arterial, collector, and local. Rates were determined considering all accidents, injury accidents only, and fatal accidents only. The highest overall accident rates were for urban principal arterials (non-interstate or freeway) followed by urban minor arterials and urban collectors. The lowest overall rate was for rural principal arterials (interstate) followed by urban principal arterials (interstate and other freeway). The rural local system and rural principal arterials (non-interstate) also had relatively low total accident rates. Injury accident rates for the various categories were ordered similar to overall accident rates. However, the ordering for the fatal accident rates was different. The highest fatal accident rates were for rural collectors and minor arterials. The lowest fatal accident rates were for urban principal arterials (interstate and other freeway), the local urban system, and rural principal arterials (interstate).

Statewide accident rates by federal-aid system are shown in Table A-2. The highest rate was for the federal-aid urban system and the lowest rate was for the interstate system. The federal-aid primary (non-interstate), federal-aid secondary (rural), and non-federal-aid systems had relatively similar rates.

Statewide accident rates by administrative classification are listed in Table A-3. The rate for the primary system was lowest with the rate for the secondary system highest. Rates for the rural secondary and unclassified systems were between these two levels and were similar.

The benefits of providing a median and increasing the median width are shown in Table A-4. The accident rate for rural highways having four or more lanes which are divided and have a median width of less than 30 feet is only about one-third that for an undivided highway. The accident rate is decreased even farther (by approximately one-half) when comparing a highway which is divided with a median width of more than 30 feet to a highway having a median width of less than 30 feet.

The effect of access control is described in Table A-5. The large reduction in the accident rate for highways having full control of access compared to those with partial or no access control is shown. However, the accident rate for partial control of access is not dramatically below that for no access control.

An analysis of accident rates for rural highways by federal-aid system and terrain is presented in Table A-6. Each county was given a terrain classification as either flat, rolling, or mountainous since a classification was not available for each road segment. Considering the entire system, the lowest rate was for flat terrain.

The rates for mountainous and rolling terrains were very similar with the rate for rolling terrain slightly higher.

Rates by rural-urban designation are shown in Table A-7. The lowest rate was for rural areas. The highest rate was for small urban areas rather than urbanized areas, although the average traffic volume was much higher in urbanized areas. The presence of more freeway-type highways in the urbanized areas may account for this finding.

The summary of accident rates by route signing identifier reveals that US-signed routes have a higher rate than state-marked routes, with interstates having a much lower rate (Table A-8). The US-signed routes have a higher average volume than state-marked routes, which may partially account for the higher accident rate.

The relationship between accident rate and traffic volume (average annual daily traffic) for various federal-aid highway classifications is illustrated in Table A-9. For interstates, which have high design criteria, the accident rate was fairly constant up until the volume range of over 40,000 vehicles per day where a large increase occurred. For each of the other highway classifications (except non-federal aid highways), the highest rate was for the lowest volume category (AADT under 1,000). One reason for a high rate at low-volume locations is the fact that a few accidents may increase the rate substantially. Lower volume roads also are constructed to less stringent design standards, which could contribute to a higher accident rate. For the federal-aid urban category, there was a constant decrease in accident rate as volume increased. There was no definite pattern for the other highway classifications.

The percentage of accidents occurring during wet or snow or icy pavement conditions or during darkness by rural or urban highway type classification is given in Table A-10. There was not a large fluctuation in the percentage of accidents occurring during wet pavement conditions with an overall percentage of 24 percent on both rural and urban roadways. There were large variations in the percentage of accidents occurring on the various highway types during snow or icy conditions. This percentage would tend to change by year depending on the amount of snowfall any given year. The percentage on rural roads (5.2 percent) was twice that on urban roads (2.6 percent). The highest percentages were on interstates and parkways with the highest being 12 percent. There were also large variations in the percentage of accidents occurring during darkness. The percentage was higher on rural roads (32 percent) than urban roads (22 percent). The highest percentages were on interstates and parkways with the highest being 43 percent. This would be expected given the level of nighttime driving on these types of roadway.

TABLE A-1. STATEWIDE ACCIDENT RATES BY FUNCTIONAL CLASSIFICATION (1988-1992 DATA)

LOCATION	FUNCTIONAL CLASSIFICATION	AVERAGE TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATES (ACC PER 100 MVM) ALL	INJURY	FATAL
Rural	Principal Arterial, Interstate	578	21,410	58	18	0.9
	Principal Arterial, Other	1,574	6,360	143	51	2.1
	Minor Arterial	1,753	3,910	242	82	3.0
	Major Collector	7,342	2,150	259	94	3.4
	Minor Collector	9,257	700	262	103	3.4
	Local System	4,946	690	135	48	1.5
Urban	Principal Arterial, Interstate	197	51,650	118	29	0.5
	Principal Arterial, Other Freeway	86	16,650	121	32	0.5
	Other Principal Arterial	473	16,310	636	160	1.2
	Minor Arterial	783	9,320	603	158	1.4
	Collector	283	4,470	447	123	1.8
	Local System	140	2,960	277	76	0.5

TABLE A-2. STATEWIDE ACCIDENT RATES BY FEDERAL-AID SYSTEM (1988-1992 DATA)

FEDERAL-AID SYSTEM	ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATES (ACC PER 100 MVM)
Interstate	35,021	766	29,490	85
Federal-Aid Primary (other than Interstate)	122,630	3,789	6,360	279
Federal-Aid Urban	116,999	1,150	9,070	615
Federal-Aid Secondary (Rural Only)	74,922	7,322	2,150	260
Non-Federal Aid	41,931	14,382	720	221

TABLE A-3. STATEWIDE ACCIDENT RATES BY ADMINISTRATIVE CLASSIFICATION (1988-1992 DATA)

ADMINISTRATIVE CLASSIFICATION	ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATES (ACC PER 100 MVM)
Primary	177,077	4,631	10,390	202
Secondary	157,690	8,068	2,880	371
Rural Secondary	46,957	12,145	800	263
Unclassified	8,814	2,449	840	235

TABLE A-4. STATEWIDE ACCIDENT RATES BY MEDIAN TYPE (RURAL ROADS) (WITH FOUR OR MORE LANES (1988-1992 DATA)

MEDIAN TYPE	ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATES (ACC PER 100 MVM)
Undivided	2,622	46	8,360	376
Divided, Median Less than 30 Feet, No Barrier	5,752	277	8,830	129
Divided, Median Greater than 30 Feet, No Barrier	17,031	1,088	13,280	65

TABLE A-5. STATEWIDE ACCIDENT RATES BY ACCESS CONTROL (1988-1992 DATA)

ACCESS CONTROL	ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATES (ACC PER 100 MVM)
Full Control	42,891	1,509	18,110	86
Partial Control	4,595	200	4,380	288
No Control	343,078	25,701	2,140	342

TABLE A-6. STATEWIDE ACCIDENT RATES FOR RURAL HIGHWAYS BY FEDERAL-AID SYSTEM AND TERRAIN (1988-1992 DATA)

FEDERAL-AID SYSTEM	ACCIDENT RATES (ACC/100 MVM) BY TERRAIN CLASSIFICATION		
	FLAT	ROLLING	MOUNTAINOUS
Interstate	50	67	57
Federal-Aid Primary	114	204	170
Federal-Aid Secondary	180	275	258
Non Federal-Aid	203	218	213
All	138	203	191

TABLE A-7. STATEWIDE ACCIDENT RATES BY RURAL-URBAN DESIGNATION (1988-1992 DATA)

AREA TYPE	ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATES (ACC PER 100 MVM)
Rural	183,571	25,458	2,160	183
Small Urban Area	66,289	904	8,460	475
Urbanized Area	140,702	1,051	19,640	374

TABLE A-8. STATEWIDE ACCIDENT RATES BY ROUTE SIGNING IDENTIFIER (1988-1992 DATA)

ROUTE SIGNING IDENTIFIER	ACCIDENTS	TOTAL MILEAGE	AVERAGE AADT	ACCIDENT RATES (ACC PER 100 MVM)
Interstate	35,021	777	29,080	85
US	157,284	3,543	6,490	375
State	199,159	23,093	1,630	290

TABLE A-9. RELATIONSHIP BETWEEN ACCIDENT RATE AND TRAFFIC VOLUME (1988-1992 DATA)

VOLUME RANGE (AADT)	ACCIDENT RATES (ACC PER 100 MVM)				
	INTERSTATE	FEDERAL-AID PRIMARY	FEDERAL-AID URBAN	FEDERAL-AID SECONDARY	NON-FEDERAL AID
0-999	*	956	1,280	510	320
1000-2,499	*	423	854	315	210
2,500-4,999	*	198	669	210	223
5,000-9,999	49	208	649	144	79
10,000-19,999	63	284	653	200	196
20,000-29,999	58	520	608	63	1,718
30,000-39,999	71	479	420	72	*
40,000 or more	129	254	343	354	*

* No data in this volume range.

TABLE A-10. PERCENTAGE OF ACCIDENTS OCCURING DURING WET OR SNOW OR ICE PAVEMENT CONDITIONS OR DURING DARKNESS BY RURAL AND URBAN HIGHWAY TYPE CLASSIFICATION (1988-1992 DATA)

		PERCENT OF ALL ACCIDENTS		
LOCATION	HIGHWAY TYPE	WET	SNOW OR ICE	DARKNESS
Rural	One-Lane	26	3.5	25
	Two-Lane	24	4.6	31
	Three-Lane	32	3.4	27
	Four-Lane Divided (Non-Interstate or Parkway)	26	4.3	27
	Four-Lane Undivided	21	3.7	23
	Interstate	19	10.8	40
	Parkway	19	12.4	43
	All Rural	24	5.2	32
Urban	Two-Lane	24	2.5	23
	Three-Lane	26	1.5	23
	Four-Lane Divided (Non-Interstate or Parkway)	24	2.2	20
	Four-Lane Undivided	25	1.7	19
	Interstate	24	5.7	30
	Parkway	18	12.3	34
	All Urban	24	2.6	22

APPENDIX B

CRITICAL "NUMBERS OF ACCIDENTS" TABLES

TABLE B-1. CRITICAL NUMBERS OF ACCIDENT RATES ON RURAL HIGHWAYS BY HIGHWAY TYPE AND SECTION LENGTH (1988-1992)

	CRITICAL NUMBERS OF ACCIDENT FOR THE GIVEN SECTION LENGTH (MILES)						
HIGHWAY TYPE	0.4	1	2	5	10	15	20
One-Lane	5	9	15	30	54	76	98
Two-Lane	7	14	23	48	86	123	160
Three-Lane	23	49	89	201	383	561	737
Four-Lane Divided (Non-Interstate and Parkway)	17	35	62	139	261	381	499
Four-Lane Undivided	36	77	142	329	632	931	1,227
InterState	17	35	63	141	266	388	508
Parkway	8	15	26	55	100	144	187

TABLE B-2. CRITICAL NUMBERS OF ACCIDENT RATES ON URBAN HIGHWAYS BY HIGHWAY TYPE AND SECTION LENGTH (1988-1992)

	CRITICAL NUMBERS OF ACCIDENT FOR THE GIVEN SECTION LENGTH (MILES)					
HIGHWAY TYPE	0.4	1	2	5	8	10
Two-Lane	42	92	171	399	622	769
Three-Lane (Non-Interstate and Parkway)	45	100	185	433	676	837
Four-Lane Divided	86	196	372	887	1,394	1,730
Four-Lane Undivided	141	326	627	1,510	2,383	2,963
InterState	70	156	295	699	1,097	1,360
Parkway	15	30	53	117	178	219

APPENDIX C

CRITICAL ACCIDENT RATE TABLES FOR HIGHWAY SECTIONS

TABLE C-1. CRITICAL ACCIDENT RATES FOR RURAL ONE-LANE SECTIONS (FIVE-YEAR PERIOD)(1988-1992)

	CRITICAL ACCIDENT RATE (ACC/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
100	2,353	1,640	1,194	836	670
200	1,640	1,194	906	670	558
300	1,355	1,011	786	600	510
400	1,194	906	717	558	482
500	1,087	836	670	531	463
700	952	747	611	495	439
1,000	836	670	558	463	417
1,500	731	600	510	434	396
2,000	670	558	482	417	384
2,500	629	531	463	405	376
3,000	600	510	449	396	370

TABLE C-2. CRITICAL ACCIDENT RATES FOR RURAL TWO-LANE SECTIONS (FIVE-YEAR PERIOD)(1988-1992)

	CRITICAL ACCIDENT RATE (ACC/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)					
AADT	0.5	1	2	5	10	20
100	2,093	1,436	1,028	705	556	457
300	1,175	862	660	493	414	360
500	931	705	556	432	372	331
1,000	705	556	457	372	331	303
1,500	611	493	414	346	313	290
2,000	556	457	389	331	303	283
3,000	493	414	360	313	290	274
4,000	457	389	343	303	283	269
5,000	432	372	331	296	278	265
7,000	400	350	316	286	271	261
8,000	389	343	311	283	269	259
9,000	380	337	306	280	267	258
10,000	372	331	303	278	265	257

TABLE C-3. CRITICAL ACCIDENT RATES FOR RURAL THREE-LANE SECTIONS (FIVE-YEAR PERIOD)(1988-1992)

	CRITICAL ACCIDENT RATE (ACC/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	3	5
100	2,073	1,420	1,015	850	695
300	1,161	850	650	566	485
500	919	695	547	485	425
1,000	695	547	449	407	366
1,500	601	485	407	373	340
2,000	547	449	382	353	325
3,000	485	407	353	330	307
4,000	449	382	336	316	297
5,000	425	366	325	307	290
6,000	407	353	316	300	284
7,000	393	344	310	295	280
8,000	382	336	305	291	277
9,000	373	330	300	287	274
10,000	366	325	297	284	272

TABLE C-4. CRITICAL ACCIDENT RATES FOR RURAL FOUR-LANE DIVIDED SECTIONS (NON-INTERSTATE AND PARKWAY) (FIVE-YEAR PERIOD)(1988-1992)

	CRITICAL ACCIDENT RATE (ACC/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	696	510	389	291	244
1,000	510	389	310	244	212
2,500	360	291	244	204	184
5,000	291	244	212	184	170
7,500	261	223	198	175	164
10,000	244	212	190	170	161
15,000	223	198	180	164	157
20,000	212	190	174	161	154
30,000	198	180	167	157	151
40,000	190	174	163	154	149
50,000	184	170	161	152	148

TABLE C-5. CRITICAL ACCIDENT RATES FOR RURAL FOUR-LANE UNDIVIDED SECTIONS (FIVE-YEAR PERIOD)(1988-1992)

	CRITICAL ACCIDENT RATE (ACC/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	1,225	954	773	621	547
1,000	954	773	651	547	496
2,500	729	621	547	483	451
5,000	621	547	496	451	429
7,500	574	515	473	437	419
10,000	547	496	460	429	413
20,000	496	460	435	413	402
30,000	473	444	424	406	397
40,000	460	435	418	402	395
50,000	451	429	413	400	393

TABLE C-6. CRITICAL ACCIDENT RATES FOR RURAL INTERSTATE SECTIONS (FIVE-YEAR PERIOD)(1988-1992)

	CRITICAL ACCIDENT RATE (ACC/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)					
AADT	0.5	1	2	5	10	20
500	458	318	230	161	128	107
1,000	318	230	174	128	107	92
2,500	210	161	128	101	88	79
5,000	161	128	107	88	79	73
7,500	140	115	97	82	75	70
10,000	128	107	92	79	73	68
20,000	107	92	82	73	68	65
30,000	97	85	77	70	66	64
40,000	92	82	74	68	65	63
50,000	88	79	73	67	64	63

TABLE C-7. CRITICAL ACCIDENT RATES FOR RURAL PARKWAY SECTIONS (FIVE-YEAR PERIOD)(1988-1992)

	CRITICAL ACCIDENT RATE (ACC/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)					
AADT	0.5	1	2	5	10	20
400	598	418	305	214	172	144
700	446	323	244	179	148	127
1,000	376	278	214	162	137	119
1,500	313	237	188	146	126	112
2,000	278	214	172	137	119	108
3,000	237	188	154	126	112	102
4,000	214	172	144	119	108	99
5,000	199	162	137	115	105	97
7,000	179	148	127	110	101	95
10,000	162	137	119	105	97	92
20,000	137	119	108	97	92	89
40,000	119	108	99	92	89	86

TABLE C-8. CRITICAL ACCIDENT RATES FOR URBAN TWO-LANE SECTIONS (FIVE-YEAR PERIOD)(1988-1992)

	CRITICAL ACCIDENT RATE (ACC/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	1,566	1,248	1,034	852	763
1,000	1,248	1,034	889	763	702
2,500	981	852	763	686	648
5,000	852	763	702	648	621
7,500	796	725	675	631	609
10,000	763	702	659	621	602
15,000	725	675	640	609	594
20,000	702	659	629	602	589
30,000	675	640	615	594	583
40,000	659	629	607	589	579
50,000	648	621	602	585	577

TABLE C-9. CRITICAL ACCIDENT RATES FOR URBAN THREE-LANE SECTIONS (FIVE-YEAR PERIOD)(1988-1992)

	CRITICAL ACCIDENT RATE (ACC/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
500	1,350	1,061	868	704	625
1,000	1,061	868	737	625	570
2,500	820	704	625	556	521
5,000	704	625	570	521	497
7,500	654	590	545	506	487
10,000	625	570	531	497	481
15,000	590	545	514	487	473
20,000	570	531	504	481	469
30,000	545	514	492	473	463
40,000	531	504	485	469	460
50,000	521	497	481	466	458

TABLE C-10. CRITICAL ACCIDENT RATES FOR URBAN FOUR-LANE DIVIDED SECTIONS (NON-INTERSTATE AND PARKWAY) (FIVE-YEAR PERIOD)(1988-1992)

	CRITICAL ACCIDENT RATE (ACC/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
1,000	1,017	829	702	593	539
2,500	783	670	593	526	492
5,000	670	593	539	492	469
10,000	593	539	502	469	453
15,000	559	516	485	459	446
20,000	539	502	476	453	441
25,000	526	492	469	449	438
30,000	516	485	464	446	436
40,000	502	476	457	441	433
50,000	492	469	453	438	431
60,000	485	464	449	436	430

TABLE C-11. CRITICAL ACCIDENT RATES FOR URBAN FOUR-LANE UNDIVIDED SECTIONS (FIVE-YEAR PERIOD)(1988-1992)

	CRITICAL ACCIDENT RATE (ACC/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
1,000	1,716	1,456	1,278	1,124	1,047
2,500	1,391	1,233	1,124	1,028	981
5,000	1,233	1,124	1,047	981	947
10,000	1,124	1,047	994	947	924
15,000	1,076	1,014	971	932	913
20,000	1,047	994	957	924	907
25,000	1,028	981	947	918	903
30,000	1,014	971	940	913	900
40,000	994	957	930	907	895
50,000	981	947	924	903	892
60,000	971	940	919	900	890

TABLE C-12. CRITICAL ACCIDENT RATES FOR URBAN INTERSTATE SECTIONS (FIVE-YEAR PERIOD)(1988-1992)

	CRITICAL ACCIDENT RATE (ACC/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)				
AADT	0.5	1	2	5	10
1,000	491	374	296	232	201
5,000	277	232	201	174	161
10,000	232	201	179	161	151
20,000	201	179	164	151	145
30,000	187	170	158	147	142
40,000	179	164	154	145	140
50,000	174	161	151	143	139
60,000	170	158	149	142	138
70,000	167	156	148	141	138
80,000	164	154	147	140	137
90,000	162	153	146	140	137
100,000	161	151	145	139	136

TABLE C-13. CRITICAL ACCIDENT RATES FOR URBAN PARKWAY SECTIONS (FIVE-YEAR PERIOD)(1988-1992)

AADT	CRITICAL ACCIDENT RATE (ACC/100 MVM) FOR THE GIVEN SECTION LENGTH (MILES)					
	0.5	1	2	5	10	20
500	727	535	411	309	260	227
1,000	535	411	329	260	227	204
2,500	381	309	260	218	198	184
5,000	309	260	227	198	184	174
7,500	278	239	212	189	177	169
10,000	260	227	204	184	174	167
15,000	239	212	194	177	169	164
20,000	227	204	188	174	167	162
30,000	212	194	181	169	164	160
40,000	204	188	176	167	162	158
90,000	185	175	168	161	158	155
50,000	198	184	174	165	160	157

APPENDIX D

CRITICAL ACCIDENT RATE TABLES FOR "SPOTS"
(SPOT IS DEFINED AS 0.3 MILE IN LENGTH)

TABLE D-1. CRITICAL ACCIDENT RATES FOR "SPOTS" ON RURAL ONE-LANE, TWO-LANE AND THREE-LANE HIGHWAYS (FIVE-YEAR PERIOD)(1988-1992)

AADT	CRITICAL ACCIDENT RATE (ACC/MV) BY HIGHWAY TYPE		
	ONE-LANE	TWO-LANE	THREE-LANE
100	9.44	8.53	8.30
500	4.05	3.53	3.40
1,000	3.02	2.59	2.48
2,500	2.19	1.84	1.75
5,000	1.79	1.48	1.41
7,500	1.62	1.33	1.26
10,000	1.53	1.25	1.18
15,000	1.41	1.14	1.08
20,000	1.34	1.08	1.02

TABLE D-2. CRITICAL ACCIDENT RATES FOR "SPOTS" ON RURAL FOUR-LANE HIGHWAYS, INTERSTATES, FOUR-LANE HIGHWAYS, INTERSTATES,(FIVE-YEAR PERIOD)(1988-1992)

AADT	CRITICAL ACCIDENT RATE (ACC/MV) BY HIGHWAY TYPE			
	FOUR-LANE DIVIDED (NON-INTERSTATE AND PARKWAY)	FOUR-LANE UNDIVIDED	INTERSTATE	PARKWAY
500	2.68	4.54	1.83	2.11
1,000	1.90	3.43	1.23	1.45
2,500	1.29	2.52	0.78	0.94
5,000	1.01	2.09	0.58	0.71
10,000	0.82	1.80	0.45	0.56
15,000	0.74	1.67	0.39	0.50
20,000	0.70	1.60	0.36	0.46
30,000	0.64	1.51	0.32	0.42
40,000	0.61	1.46	0.30	0.39
50,000	0.59	1.42	0.29	0.38

TABLE D-3. CRITICAL ACCIDENT RATES FOR "SPOTS" ON URBAN OTHER, TWO-LANE AND THREE-LANE HIGHWAYS (FIVE-YEAR PERIOD)(1988-1992)

AADT	CRITICAL ACCIDENT RATE (ACC/MV) BY HIGHWAY TYPE	
	TWO-LANE	THREE-LANE
500	5.99	5.48
1,000	4.65	4.22
2,500	3.54	3.18
5,000	3.01	2.68
7,500	2.78	2.47
10,000	2.65	2.34
15,000	2.49	2.19
20,000	2.40	2.11
30,000	2.29	2.00
40,000	2.22	1.94

TABLE D-4. CRITICAL ACCIDENT RATES FOR "SPOTS" ON URBAN FOUR-LANE HIGHWAYS, INTERSTATES, FOUR-LANE HIGHWAYS, INTERSTATES,(FIVE-YEAR PERIOD)(1988-1992)

AADT	CRITICAL ACCIDENT RATE (ACC/MV) BY HIGHWAY TYPE			
	FOUR-LANE DIVIDED (NON-INTERSTATE AND PARKWAY)	FOUR-LANE UNDIVIDED	INTERSTATE	PARKWAY
1,000	3.86	6.26	1.88	2.12
5,000	2.41	4.28	0.99	1.16
10,000	2.09	3.84	0.81	0.95
15,000	1.95	3.64	0.73	0.87
20,000	1.87	3.53	0.68	0.82
30,000	1.78	3.39	0.63	0.76
40,000	1.72	3.31	0.60	0.72
50,000	1.68	3.26	0.58	0.70
60,000	1.65	3.22	0.56	0.68
70,000	1.63	3.19	0.55	0.67
80,000	1.61	3.16	0.54	0.65
90,000	1.60	3.14	0.53	0.65
100,000	1.59	3.12	0.52	0.64

APPENDIX E

TOTAL ACCIDENT RATES FOR ALL INCORPORATED CITIES

TABLE E-1. ACCIDENTS AND ACCIDENT RATES FOR ALL CITIES LISTED IN THE 1990 CENSUS (1988-1992 DATA)

CITY	POPULATION	NUMBER OF ACCIDENTS (88-92)	ANNUAL ACCIDENTS PER 1000 POPULATION	CITY	POPULATION	NUMBER OF ACCIDENTS (88-92)	ACCIDENTS PER 1000 POPULATION
Adairville	906	26	6	Burnside	695	214	62
Albany	2,062	705	68	Butler	625	51	16
Alexandria	5,592	1,145	41	Cadiz	2,148	675	63
Allen	229	178	156	Calhoun	854	100	23
Anchorage	2,082	179	17	California	130	*	*
Annville	470	*	*	Calvert City	2,531	349	28
Arlington	449	28	13	Camargo	1,022	45	9
Ashland	23,622	8,049	68	Cambridge	193	*	*
Auburn	1,273	132	21	Campbellsburg	604	90	30
Audubon Park	1,520	4	1	Campbellsville	9,577	2,800	59
Augusta	1,336	167	25	Campton	484	399	165
Bancroft	582	1	0	Caneyville	549	114	42
Barbourmeade	1,402	4	1	Carlisle	1,639	354	43
Barbourville	3,658	942	52	Carrollton	3,715	915	49
Bardstown	6,601	2,805	83	Carrsville	98	1	2
Bardwell	819	60	15	Catlettsburg	2,231	704	63
Barlow	706	44	13	Cave City	1,953	564	58
Beattyville	1,131	435	77	Centertown	383	42	22
Beaver Dam	2,904	775	53	Central City	4,979	1,435	58
Bedford	761	149	39	Cherrywood Village	340	*	*
Beechwood Village	1,263	*	*	Clarkson	611	43	14
Bellefonte	838	75	18	Clay	1,173	111	19
Bellemeade	927	1	0	Clay City	1,276	*	*
Bellevue	6,997	1,300	37	Clinton	1,720	*	*
Bellewood	329	*	*	Cloverport	1,207	131	22
Benham	717	45	13	Coal Run	262	259	198
Benton	3,899	1,130	58	Cold Spring	2,880	1,350	94
Berea	9,126	1,825	40	Coldstream	862	*	*
Berry	240	3	3	Columbia	3,845	1,531	80
Blaine	271	8	6	Columbus	252	*	*
Blandville	95	*	*	Concord	65	3	9
Bloomfield	845	123	29	Corbin	7,419	2,912	79
Blue Ridge Manor	565	*	*	Corinth	137	117	171
Bonnieville	300	69	46	Corydon	790	99	25
Booneville	232	137	118	Covington	43,264	14,147	65
Bowling Green	40,641	17,059	84	Crab Orchard	825	63	15
Bradfordsville	199	29	29	Creekside	323	*	*
Brandenburg	1,857	600	65	Crescent Park	364	157	86
Bremen	267	72	54	Crescent Springs	2,179	1,097	101
Briarwood	658	*	*	Crestview	356	4	2
Broadfields	273	*	*	Crestview Hills	2,546	797	63
Brodhead	1,140	1	0	Crestwood	1,435	540	75
Broeck Point	325	*	*	Crittenden	731	240	66
Bromley	1,137	184	32	Crofton	699	127	36
Brooksville	670	185	55	Crossgate	261	*	*
Brownsboro Farm	670	*	*	Cumberland	3,112	563	36
Brownsboro Village	361	*	*	Cynthiana	6,497	1,679	52
Brownsville	897	285	64	Danville	12,420	4,036	65
Burgin	1,009	47	9	Dawson Springs	3,129	486	31
Burkesville	1,815	480	53	Dayton	6,576	761	23

TABLE E-1. ACCIDENTS AND ACCIDENT RATES FOR ALL CITIES LISTED IN THE 1990 CENSUS (1988-1992 DATA)(Continued)

CITY	POPULATION	NUMBER OF ACCIDENTS (88-92)	ANNUAL ACCIDENTS PER 1000 POPULATION
Dixon	552	200	73
Douglass Hills	5,549	*	*
Dover	297	15	10
Drakesboro	565	113	40
Druid Hills	305	*	*
Dry Ridge	1,601	938	117
Earlington	1,833	136	15
Eddyville	1,889	129	14
Edgewood	8,143	1,121	28
Edmonton	1,477	472	64
Ekron	110	16	29
Elizabethtown	18,167	7,338	81
Elkhorn City	813	185	46
Elkton	1,789	542	61
Elsmere	6,847	920	27
Eminence	2,055	562	55
Erlanger	15,979	3,870	48
Eubank	354	24	14
Evarts	1,063	158	30
Ewing	268	35	26
Fairfield	142	21	30
Fairmeade	280	2	1
Fairview	119	53	89
Falmouth	2,378	548	46
Ferguson	934	45	10
Fincastle	838	*	*
Flatwoods	7,799	933	24
Fleming-neon	759	*	*
Flemingsburg	3,071	675	44
Florence	18,624	9,397	101
Fordsville	522	91	35
Forest Hills	454	35	15
Fort Mitchell	7,438	1,406	38
Fort Thomas	16,032	1,593	20
Fort Wright	6,570	1,909	58
Foster	65	*	*
Fountain Run	259	11	9
Fox Chase	528	*	*
Frankfort	25,968	6,894	53
Franklin	7,607	1,782	47
Fredonia	490	53	22
Frenchburg	625	113	36
Fulton	3,078	930	60
Gamaliel	462	16	7
Georgetown	11,414	3,070	54
Germantown	213	61	57
Ghent	365	35	19
Glasgow	12,351	3,957	64
Glencoe	257	49	38
Glenview	653	*	*
Glenview Hills	353	*	*
Glenview Manor	197	*	*
Goose Creek	321	*	*
Grand Rivers	351	50	29
Gratz	65	14	43
Graymoor	2,911	29	2
Grayson	3,510	1,111	63
Green Spring	768	*	*
Greensburg	1,990	551	55
Greenup	1,158	287	50
Greenville	4,689	1,052	45
Guthrie	1,504	105	14
Hanson	450	80	36
Hardin	595	71	24
Hardinsburg	1,906	441	46
Harlan	2,686	1,285	96
Harrodsburg	7,335	2,182	60
Hartford	2,532	203	16
Hawesville	998	156	31
Hazard	5,416	2,487	92
Hazel	460	26	11
Hebron Estates	930	*	*
Henderson	25,945	8,500	66
Hickman	2,689	312	23
Hickory Hill	152	11	15
Highland Heights	4,223	1,328	63
Hills And Dales	154	*	*
Hillview	6,119	*	*
Hindman	798	215	54
Hiseville	220	21	19
Hodgenville	2,721	756	56
Hollow Creek	991	*	*
Hollyvilla	649	*	*
Hopkinsville	29,809	7,696	52
Horse Cave	2,284	121	11
Houston Acres	496	*	*
Hunters Hollow	286	*	*
Hurstbourne	4,420	*	*
Hurstbourne Acres	1,072	6	1
Hustonville	313	56	36
Hyden	375	73	39
Independence	10,444	1,695	33
Indian Hills	1,074	44	8
Indian Hills Ch. Sec.	1,005	*	*
Inez	511	214	84
Irvine	2,836	789	56
Irvington	1,180	98	17
Island	446	62	28
Jackson	2,466	822	67
Jamestown	1,641	369	45

TABLE E-1. ACCIDENTS AND ACCIDENT RATES FOR ALL CITIES LISTED IN THE 1990 CENSUS (1988-1992 DATA)(Continued)

CITY	POPULATION	NUMBER OF ACCIDENTS (88-92)	ANNUAL ACCIDENTS PER 1000 POPULATION
Jeffersontown	23,221	4,519	39
Jeffersonville	1,854	86	9
Jenkins	2,751	352	26
Junction City	1,983	398	40
Keeneland	393	1	1
Kenton Vale	358	13	7
Kevil	337	58	34
Kingsley	399	*	*
Kuttawa	535	36	14
Lacenter	1,040	125	24
Lafayette	106	1	2
Lagrange	3,853	1,129	59
Lakeside Park	3,131	394	25
Lakeview Heights	252	*	*
Lancaster	3,421	698	41
Langdon Place	874	*	*
Latonia Lakes	410	43	21
Lawrenceburg	5,911	1,182	40
Lebanon	5,695	1,616	57
Lebanon Junction	1,741	133	15
Leitchfield	4,965	1,736	70
Lewisburg	772	111	29
Lewisport	1,778	115	13
Lexington	225,366	62,792	56
Liberty	1,937	180	19
Lincolnshire	125	1	2
Livermore	1,534	151	20
Livingston	241	25	21
London	5,757	3,087	107
Lone Oak	465	262	113
Loretto	820	99	24
Louisa	1,990	556	56
Louisville	269,063	83,684	62
Loyall	1,100	83	15
Ludlow	4,736	520	22
Lynch	1,166	50	9
Lyndon	8,037	42	1
Lynnview	1,017	18	4
Mackville	200	8	8
Madisonville	16,200	6,393	79
Manchester	1,634	860	105
Manor Creek	179	*	*
Marion	3,320	778	47
Martin	694	264	76
Maryhill Estates	177	*	*
Mayfield	9,935	3,183	64
Maysville	7,169	3,538	99
Mchenry	414	28	14
Mckee	870	229	53
Meadowbrook Farm	163	*	*
Meadowvale	798	3	1
Meadowview Estates	259	*	*
Melbourne	660	74	22
Mentor	169	23	27
Middlesboro	11,328	2,639	47
Middletown	5,016	172	7
Midway	1,290	155	24
Millersburg	937	61	13
Milton	563	138	49
Minor Lane Heights	1,675	14	2
Mockingbird Valley	177	13	15
Monterey	164	6	7
Monticello	5,357	1,689	63
Moorland	467	*	*
Morehead	8,357	2,688	64
Morganfield	3,776	799	42
Morgantown	2,284	825	72
Mortons Gap	987	75	15
Mount Olivet	384	28	15
Mount Sterling	5,362	2,028	76
Mount Vernon	2,654	826	62
Mount Washington	5,226	772	30
Muldraugh	1,376	431	63
Munfordville	1,556	447	58
Murray	14,439	2,217	31
Murray Hill	619	*	*
Nebo	227	41	36
New Castle	893	77	17
New Haven	796	126	32
Newport	18,871	5,210	55
Nicholasville	13,603	2,784	41
Norbourne Estates	461	*	*
North Middletown	602	37	12
Northfield	898	90	20
Nortonville	1,209	147	24
Norwood	372	*	*
Oak Grove	2,863	1,110	78
Oakland	202	9	9
Old Brownboro Place	348	*	*
Olive Hill	1,809	445	49
Orcharh Grass Hills	1,058	*	*
Owensboro	53,549	15,239	57
Owenton	1,306	387	59
Owingsville	1,491	401	54
Paducah	27,256	11,708	86
Paintsville	4,354	1,800	83
Paris	8,730	2,322	53
Park City	549	69	25
Park Hills	3,321	361	22
Park Lake	263	*	*

TABLE E-1. ACCIDENTS AND ACCIDENT RATES FOR ALL CITIES LISTED IN THE 1990 CENSUS (1988-1992 DATA)(Continued)

CITY	POPULATION	NUMBER OF ACCIDENTS (88-92)	ANNUAL ACCIDENTS PER 1000 POPULATION	CITY	POPULATION	NUMBER OF ACCIDENTS (88-92)	ACCIDENTS PER 1000 POPULATION
Parkway Village	707	*	*	Seneca Gardens	684	*	*
Pembroke	640	38	12	Sharpsburg	315	65	41
Perryville	815	102	25	Shelbyville	6,238	2,415	77
Pewee Valley	1,283	197	31	Shepherdsville	4,805	1,852	77
Pikeville	6,324	2,329	74	Shively	15,535	5,179	67
Pineville	2,198	636	58	Silver Grove	1,102	200	36
Pioneer Village	1,130	*	*	Simpsonville	907	102	23
Pippa Passes	195	58	60	Slaughters	235	31	26
Plantation	830	8	2	Smithfield	115	5	9
Pleasureville	761	60	16	Smithland	384	130	68
Plum Springs	361	2	1	Smiths Grove	703	169	48
Plymouth Village	162	1	1	Somerset	10,733	4,784	89
Poplar Hills	377	*	*	Sonora	295	158	107
Powderly	748	135	36	South Carrollton	202	57	56
Prestonsburg	3,558	1,952	110	South Parkview	214	34	32
Prestonville	205	29	28	South Shore	1,318	182	28
Princeton	6,940	1,386	40	Southgate	3,266	543	33
Prospect	2,788	*	*	Sparta	133	23	35
Providence	4,123	655	32	Spring Mill	342	*	*
Raceland	2,256	238	21	Spring Valley	400	*	*
Radcliff	19,772	3,964	40	Springfield	2,875	720	50
Ravenna	804	103	26	Springlee	451	1	0
Raywick	157	*	*	Stamping Ground	698	83	24
Richlawn	435	*	*	Stanford	2,686	788	59
Richmond	21,155	7,775	74	Stanton	2,795	598	43
River Bluff	452	*	*	Strathmoor Gardens	300	*	*
Riverwood	506	*	*	Strathmoor Manor	391	*	*
Robinswood	250	*	*	Strathmoor Village	361	*	*
Rochester	191	3	3	Sturgis	2,184	355	33
Rockport	385	15	8	Sycamore	70	*	*
Rolling Fields	593	3	1	Taylor Mill	5,530	841	30
Rolling Hills	1,135	8	1	Taylorsville	774	209	54
Russell	4,014	1,537	77	Ten Broeck	128	*	*
Russell Springs	2,363	936	79	Thornhill	146	*	*
Russellville	7,454	2,228	60	Tompkinsville	2,861	781	55
Ryland Heights	279	*	*	Trenton	378	22	12
Sacramento	563	62	22	Union	1,001	207	41
Sadieville	255	27	21	Uniontown	1,008	113	22
Saint Charles	316	38	24	Upton	719	78	22
Saint Matthews	15,800	5,839	74	Vanceburg	1,713	261	31
Saint Regis Park	1,756	14	2	Versailles	7,269	2,128	59
Salem	770	88	23	Vicco	244	68	56
Salt Lick	342	79	46	Villa Hills	7,739	365	9
Salyersville	1,917	423	44	Vine Grove	3,586	414	23
Sanders	231	11	10	Visalia	190	38	40
Sandy Hook	548	105	38	Wallins Creek	261	91	70
Sardis	171	11	13	Walton	2,034	415	41
Science Hill	628	37	12	Warfield	364	107	59
Scottsville	4,278	1,453	68	Warsaw	1,202	182	30
Sebree	1,510	196	26	Washington	795	48	12

TABLE E-1. ACCIDENTS AND ACCIDENT RATES FOR ALL CITIES LISTED IN THE 1990 CENSUS (1988-1992 DATA)(Continued)

CITY	POPULATION	NUMBER OF ACCIDENTS (88-92)	ANNUAL ACCIDENTS PER 1000 POPULATION	CITY	POPULATION	NUMBER OF ACCIDENTS (88-92)	ACCIDENTS PER 1000 POPULATION
Water Valley	321	29	18	Williamsburg	5,493	1,203	44
Waterson Park	1,542	*	*	Williamstown	3,023	713	47
Waverly	345	71	41	Willisburg	223	18	16
Wayland	359	39	22	Wilmore	4,215	238	11
Wellington	593	*	*	Winchester	15,799	3,772	48
West Buechel	1,587	604	76	Winding Falls	657	*	*
West Liberty	1,887	458	49	Windy Hills	2,452	*	*
West Point	1,216	294	48	Wingo	568	78	28
Westwood	734	143	39	Woodburg	117	*	*
Wheatcroft	206	21	20	Woodburn	343	27	16
Wheelwright	721	68	19	Woodland Hills	714	*	*
Whipps Millgate	454	*	*	Woodlawn	308	5	3
White Plains	598	60	20	Woodlawn Park	1,099	*	*
Whitesburg	1,636	687	84	Worthington	1,751	72	8
Whitesville	682	138	41	Worthington Hills	973	*	*
Wickliffe	851	217	51	Worthville	191	16	17
Wilder	691	363	105	Wurtland	1,221	125	21
Wildwood	266	*	*				

* Data Not Available

APPENDIX F

SAFETY BELT SUMMARY DATA

A comparison of the accident severity, in terms of the percentage of drivers sustaining a given injury, and the type of accident is presented in Table F-1. The use of a safety belt was shown to be effective in all types of accidents. As would be expected, the largest reductions occurred as a result of wearing a safety belt in the most severe accident types. For example, non-intersection "fixed object", "ran off road", and "overturned in road" accidents were some of the most severe accident types, and there was a large reduction in severity when a safety belt was used when those types of accidents occurred. Reduction in severity was also noted in the less severe accident types. For example, while the severity of rear-end accidents at intersections was relatively low, there was a substantial reduction in the percentage of incapacitating and non-incapacitating injuries related to wearing a safety belt.

Accident severity versus safety belt usage by speed was analyzed and tabulated in Table F-2. It was shown that safety belts are effective in reducing serious injuries for speed limits in the range of 25 to 55 mph. Accident severity was less for the 25-mph speed limit, as would be expected.

The severity of injury versus ejection from the vehicle was investigated, as shown in Table F-3, since a major benefit associated with wearing a safety belt is greatly reducing the chances of ejection from the vehicle. The serious consequences of ejection are shown with the percent of fatalities involving ejection being 66 times that if not ejected. The percent of incapacitating injuries involving ejection was 10 times that if not ejected.

Safety belt usage by age and sex of the driver is shown in Table F-4. Usage for females was above that for males. When age was considered, usage was highest for the age range of 35 through 44 years and lowest for the age range of 16 through 19 years. Usage was lower for the youngest and oldest age categories.

TABLE F-1. ACCIDENT SEVERITY VERSUS SAFETY BELT USAGE BY ACCIDENT TYPE
(DRIVERS OF PASSENGER CARS)(1988-1992 DATA)

ACCIDENT TYPE	TYPE OF INJURY	NUMBER SUSTAINING A GIVEN INJURY		PERCENTAGE SUSTAINING A GIVEN INJURY		
		NOT WEARING SAFETY BELT	WEARING SAFETY BELT	NOT WEARING SAFETY BELT	WEARING SAFETY BELT	PERCENT REDUCTION *
Intersection Angle	Fatal	152	45	0.16	0.05	69 **
	Incapacitating	3,436	1,730	3.54	2.11	40 **
	Non-Incapacitating	6,555	3,940	6.75	4.81	29 **
	Possible	7,239	5,079	7.46	6.20	17 **
Intersection Rear End	Fatal	6	5	0.01	0.01	0
	Incapacitating	799	565	1.40	0.93	34 **
	Non-Incapacitating	1,922	1,423	3.38	2.35	30 **
	Possible	3,867	3,644	6.80	6.01	12
Intersection Left Turn	Fatal	14	5	0.15	0.06	60
	Incapacitating	461	189	4.94	2.41	51 **
	Non-Incapacitating	763	405	8.17	5.16	37 **
	Possible	713	509	7.64	6.48	15
Intersection Fixed Object	Fatal	24	6	0.53	0.23	57 **
	Incapacitating	464	81	10.34	3.08	70 **
	Non-Incapacitating	729	258	16.24	9.80	40 **
	Possible	505	209	11.25	7.94	29 **
Intersection Side Swipe	Fatal	3	0	0.02	0.00	100
	Incapacitating	109	66	0.91	0.53	42
	Non-Incapacitating	283	180	2.35	1.45	38 **
	Possible	385	312	3.20	2.52	21
Non-Intersection Rear End	Fatal	48	7	0.05	0.01	80 **
	Incapacitating	1,633	934	1.86	0.98	47 **
	Non-Incapacitating	3,557	2,633	4.06	2.76	32 **
	Possible	6,202	6,424	7.07	6.73	5 **
Non-Intersection Head On	Fatal	436	88	5.54	2.71	51 **
	Incapacitating	1,093	371	13.90	11.40	18 **
	Non-Incapacitating	1,101	430	14.00	13.22	6
	Possible	858	386	10.91	11.87	-9
Non-Intersection Sideswipe	Fatal	88	16	0.18	0.04	78 **
	Incapacitating	1,972	789	4.12	2.11	49 **
	Non-Incapacitating	3,000	1,536	6.26	4.10	35 **
	Possible	3,136	1,913	6.55	5.10	22 **
Non-Intersection Vehicle Parked	Fatal	11	2	0.07	0.02	71
	Incapacitating	333	88	2.03	1.05	48 **
	Non-Incapacitating	748	203	4.56	2.42	47 **
	Possible	575	185	3.50	2.20	37 **
Non-Intersection Fixed Object	Fatal	569	49	1.62	0.22	86 **
	Incapacitating	4,542	1,123	12.97	5.14	60 **
	Non-Incapacitating	6,645	2,545	18.97	11.66	39 **
	Possible	4,702	2,522	13.43	11.55	14 **
Non-Intersection Run Off Road	Fatal	312	24	1.59	0.21	87 **
	Incapacitating	2,552	738	12.98	6.39	51 **
	Non-Incapacitating	4,287	1,539	21.80	13.33	39 **
	Possible	3,442	1,862	17.50	16.13	8 **
Non-Intersection Overturned In Road	Fatal	72	9	2.45	0.50	80 **
	Incapacitating	472	125	16.07	6.98	57 **
	Non-Incapacitating	696	359	23.69	20.06	15 **
	Possible	555	324	18.89	18.10	4 **
Non-Intersection Parking Lot	Fatal	3	0	0.00	0.00	DNA
	Incapacitating	152	51	0.21	0.12	43 **
	Non-Incapacitating	437	170	0.61	0.40	34 **
	Possible	742	437	1.04	1.03	1 **

* A negative sign means the percentage sustaining a given injury while wearing a safety belt was higher than that when wearing a safety belt

** Statistically significant change (probability of 0.99)

TABLE F-2. ACCIDENT SEVERITY VERSUS SAFETY BELT USAGE BY SPEED LIMIT (DRIVERS OF PASSENGER CARS)*

SPEED LIMIT (MPH)	TYPE OF INJURY	PERCENTAGE SUSTAINING A GIVEN INJURY: NOT WEARING SAFETY BELT	PERCENTAGE SUSTAINING A GIVEN INJURY: WEARING SAFETY BELT	PERCENT REDUCTION**
25	FATAL	0.03	0.02	33
	INCAPACITATING	1.35	0.68	50
	NON-INCAPACITATING	3.30	2.03	38
	POSSIBLE	4.58	3.56	22
35	FATAL	0.10	0.01	90
	INCAPACITATING	2.60	1.26	52
	NON-INCAPACITATING	5.45	3.25	40
	POSSIBLE	6.41	5.27	18
45	FATAL	0.22	0.04	82
	INCAPACITATING	3.68	1.82	51
	NON-INCAPACITATING	6.68	3.93	41
	POSSIBLE	8.43	7.17	15
55	FATAL	1.01	0.21	79
	INCAPACITATING	7.69	3.65	53
	NON-INCAPACITATING	10.37	7.20	31
	POSSIBLE	10.14	9.12	10

* Based on 1988-1992 accident data.

** A negative sign means the percentage sustaining a given injury while wearing a safety belt was higher than that when not wearing a safety belt.

TABLE F-3. SEVERITY OF INJURY VERSUS EJECTION
(DRIVERS OF PASSENGER CARS)*

TYPE OF INJURY	PERCENT WITH GIVEN INJURY		
	EJECTED	NOT EJECTED	PERCENT EJECTED/ PERCENT NOT EJECTED
FATAL	9.79	0.15	66
INCAPACITATING	25.60	2.58	10
NON-INCAPACITATING	12.35	5.03	2
POSSIBLE	9.14	6.34	1

* Based on 1988-1992 accident data.

TABLE F-4. SAFETY BELT USAGE BY AGE AND SEX
(DRIVERS OF PASSENGER CARS)*

VARIABLE	CATEGORY	PERCENT USAGE	
		1988-1992	1992
AGE	16-19	31.8	47.1
	20-24	43.3	58.5
	25-34	47.6	62.2
	35-44	51.0	65.3
	45-54	49.8	65.0
	55-64	47.4	62.7
	65 OR OLDER	43.4	58.4
SEX	MALE	42.5	57.2
	FEMALE	50.6	65.8

* Based on 1988-1992 accident data.